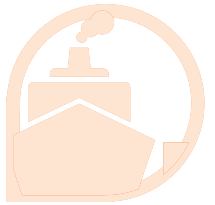
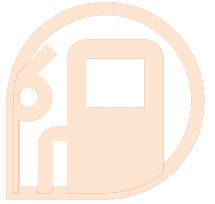
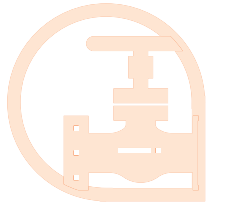
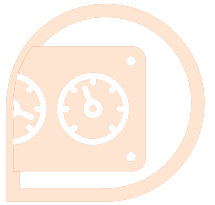


green rhino[®]
smart pollution prevention products



ABOUT US

**We design and
manufacture all of
our filtration products
in-house, in the
United Kingdom.**

Green Rhino® is a designer and manufacturer of pollution prevention products. Our range includes some of the most advanced technologies that are available on the market. We want to help drive positive change by delivering efficiency and innovation to our customers. We have a genuine interest in your pollution challenges and helping you solve them in the most efficient and cost effective way.

All of our products have been developed to meet the specific needs of our customers. We do this by following a proven method of new product development that is focussed on delivering unique solutions, which challenge the status quo and improve on the alternative methods and techniques that are already available.

We believe in true innovation and leading by example. Our unique and high performance solutions help our customers meet their own corporate and regulatory responsibilities with less cost, less business disruption and unrivalled results for the environment.



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GREEN RHINO® MOBILE SOLUTIONS

Designed for high frequency activities where there is a risk of pollution from day-to-day operations.

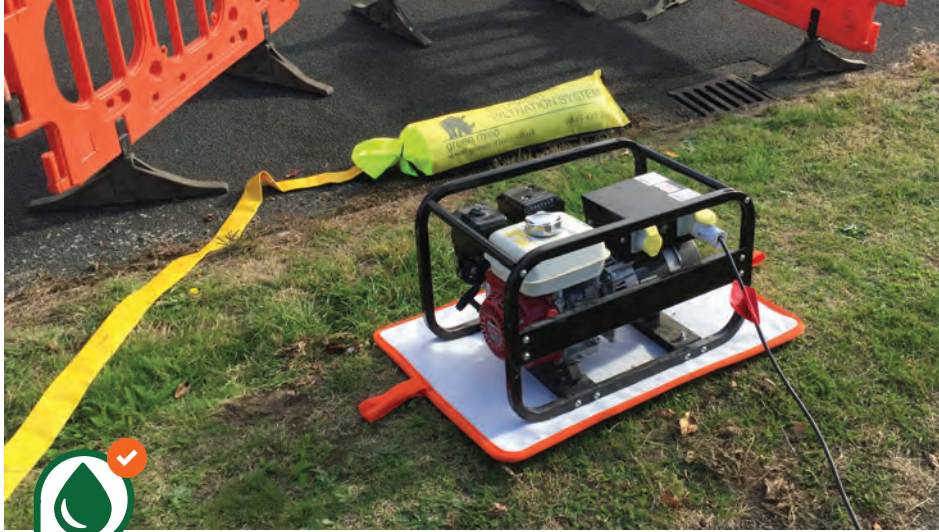
The Green Rhino® range of mobile filtration solutions is designed to offer a dynamic approach to pollution control. Used by major contractors and utilities companies around the UK, the products are proven to deliver cost savings and ensure the on-going flow of work whilst reducing overall site downtime.

The range includes some of the most highly innovative technologies available on the market that are proven to outperform traditional alternative solutions. As per the brand name sake, the Green Rhino® range is made to be rugged whilst meeting your important regulatory and corporate responsibilities, allowing you to focus on your core operational objectives.

DANGER
Deep
Excavation

DANG
DEEP
EXCAVATIO

green rhino
www.green-rhino.co.uk
FILTRATION SYS
0845 475 0



EnviroPad®

Contains unique polymer technology that turns oil into rubber with no leakage.

- Best oil retention rates on the market, up to 40 litres
- Unrivalled cost per litre compared to the marketplace alternatives
- Solidifies the spill so contaminants cannot leak out
- Usage instructions printed on the EnviroPad®
- Clean, safe, reliable pollution prevention
- 5 different sizes available
- Avoid fines and prosecutions from environmental regulators

FOR PLANT, TOOLS OR EQUIPMENT REQUIRING REFUELLING WHICH HAVE THE POTENTIAL TO SPILL OR LEAK HYDROCARBONS

HOW IT WORKS

EnviroPad® is a cost-effective solution for tool and plant spill, leakage and storage. Hydrocarbon is captured and encapsulated in our smart polymer, preventing contaminants from leaving the spill/drip area and allows unpolluted water to drain away. EnviroPad® eliminates the necessity of a drip tray and the potential to further spill. Our EnviroPads remove the risk of moving/transporting oil and water polluted trays and their lightweight, compact size means they are easy to transport, store and can be disposed of in a standard hazardous waste container.

Green Rhino® CG1 Polymer is a blend of polymers that is specifically blended to capture and retain hydrocarbons such as oil, diesel, petrol, hydraulic fluid, transformer liquid and more.

The polymers are capable of completely solidifying the hydrocarbon until it becomes a solid mass that will not leak – this offers an incredibly effective method for managing and removing unwanted waste oils from the environment.

The white granular powder works by having a physical attraction with hydrocarbons. On contact, the viscosity increases creating a solid rubber like substance that will not leak, even under pressure. Once the polymers are activated by contact with hydrocarbon, the oil is locked in permanently and cannot be released.

The polymers are non-toxic, non-carcinogenic and have no special COSHH requirements.

Our polymers are used in a variety of our filtration solutions to create very simple but effective techniques for preventing unwanted hydrocarbons entering the environment.

SPECIFICATION:

| CODE | PRODUCT | PRODUCT SIZE | ABSORBENCY/CAPACITY |
|-------------------|--------------------------|---------------|---------------------|
| GRR 52 02 01 EPAD | EnviroPad - S4 (Small) | 61cm x 46cm | Up to 4.5L. Oil |
| GRR 52 02 10 EPAD | EnviroPad - M10 (Medium) | 90cm x 69cm | Up to 10.5L. Oil |
| GRR 52 02 20 EPAD | EnviroPad - L20 (Large) | 137cm x 91cm | Up to 20.2L. Oil |
| GRR 52 02 22 EPAD | EnviroPad - L30 (Large) | 137cm x 137cm | Up to 30.4L. Oil |
| GRR 52 01 05 EPAD | EnviroPad - L40 (Large) | 218cm x 137cm | Up to 44.3L. Oil |



Before activation.



Oil is solidified.



Available in 5 sizes (see spec. below).

CONSIDERATE CONSTRUCTORS Considerate Constructors Scheme
BEST PRACTICE HUB
ccsbestpractice.org.uk/entries/enviropad/





SEDIMENT DEWATERING FILTER

Stay compliant with the most rugged and re-usable dewatering filter on the market.

- Re-use up to 20 times
- Mitigates vacuum tankering fees and reduces site downtime
- Easy to use and quick to attach
- Water discharged to environmental regulators' accepted levels
 - sediment particles down to 150µm
- Filter bag holds up to 20kg of sediment for single person safe handling
- Hydrocarbon presence integral detector
- Lightweight and highly visible colour to avoid Health and Safety incidents
- Lifting straps for safe and easy handling
- Simple emptying and sediment wash-out

FOR UTILITY EXCAVATIONS ELECTRIC CABLES, GAS AND WATER PIPES

HOW IT WORKS

Our Sediment Dewatering Filter will help you manage and resolve dewatering challenges, avoiding expensive clean-up costs of vacuum tanker and jetting vehicles or fines from environmental regulators.

Constructed from a layered filter system of nylon monofilament for capturing sediment particles down to 150µm and a PVC nylon outer sleeve tested for tensile strength and durability to deliver a multi-use filter fit for purpose. Our filter can be re-used up to 20 times depending on the type of geology. The filter is made from high quality materials sourced from responsible suppliers, all being non-hazardous and not classified.

SPECIFICATION:

| CODE | PRODUCT | PRODUCT SIZE | FLOW RATE DATA | ABSORBENCY /CAPACITY |
|-------------------|---|--------------|----------------|----------------------|
| GRR 01 05 02 SEDO | Sediment Dewatering Filter - 150 Micron | 150cm x 35cm | 450 L/min | 20kg Sediment |





BUDGET SEDIMENT FILTER

Our entry-level dewatering filter.

- Economical and ideal for lower usage rates
- Mitigates vacuum tankering fees and reduces site downtime
- Easy to use and quick to attach
- Water discharged to environmental regulators' accepted levels
 - sediment particles down to 100µm
- Filter bag holds up to 20kg of sediment for single person safe handling
- Lightweight and highly visible colour to avoid Health and Safety incidents
- Lifting straps for safe and easy handling
- Simple emptying and disposal



FOR GENERAL EXCAVATIONS

HOW IT WORKS

Our Budget Sediment Filter is used for removing sediment during dewatering activities.

Its small, lightweight design makes it ideal for easy storage and quick mobilisation. The filter media is made from a non-woven geotextile that is capable of removing sediment particles down to 100µm. The filter is durable for site use and made from high quality material that has been sourced from responsible suppliers.

SPECIFICATION:

| CODE | PRODUCT | PRODUCT SIZE | FLOW RATE DATA | ABSORBENCY /CAPACITY |
|-------------------|-------------------------------------|--------------|----------------|----------------------|
| GRR 01 06 01 BFIL | Budget Sediment Filter - 100 Micron | 150cm x 35cm | 450 L/min | 20kg Sediment |





SEDIMENT FILTER XL

Our larger dewatering filter for higher volumes of sediment.

- Re-use up to 20 times
- Mitigates vacuum tankering fees and reduces site downtime
- Easy to use and quick to attach
- Water discharged to environmental regulators' accepted levels
 - sediment particles down to 150µm
- Filter bag holds up to 40kg of sediment
- Hydrocarbon presence integral detector
- Lightweight and highly visible colour to avoid Health and Safety incidents
- 4 lifting straps for safe and easy two person handling
- Simple emptying and sediment wash-out

FOR LARGE EXCAVATIONS OR POOLS

HOW IT WORKS

Our XL dewatering filter will help you manage and resolve dewatering challenges, avoiding expensive clean-up costs of vacuum tanker and jetting vehicles or fines from environmental regulators.

Constructed from a layered filter system of nylon monofilament for capturing sediment particles down to 150µm and a PVC nylon outer sleeve tested for tensile strength and durability to deliver a multi-use filter fit for purpose. Our filter can be reused up to 20 times depending on the type of geology. The filter is made from high quality materials sourced from responsible suppliers, all being non-hazardous and not classified.

SPECIFICATION:

| CODE | PRODUCT | PRODUCT SIZE | FLOW RATE DATA | ABSORBENCY /CAPACITY |
|-------------------|--|--------------|----------------|----------------------|
| GRR 01 05 10 SEDO | Sediment Dewatering Filter XL - 150 Micron | 150cm x 80cm | 800 L/min | 40kg Sediment |

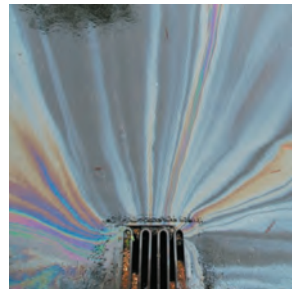




LOW GAUGE OIL AND SEDIMENT DEWATERING FILTER

Eradicate risk of costly fines and clean-ups with our filter.

- Removes oil sheen and sediment to non-detect levels
- Removes sediment to as low as 1 micron
- Flow rate of 300 L/min depending on pump
- Available with cam lock option for high pressure pump capability
- Contains polymer technology to help remove hydrocarbons
- Mitigates vacuum tankering fees and reduces site downtime
- Easy to use and quick to attach
- Lightweight – can be lifted by one person when full
- Hydrocarbon presence integral detector



FILTERS SEDIMENT TO AS LOW AS 1 MICRON

HOW IT WORKS

This system is an industrial mobile filtration system that can be used to remove contaminants from pumped water. This low gauge filter uses state of the art filtration technology with its four layer system to absorb hydrocarbons, remove large and fine sediment to as low as 1 micron, and polish light sheen from water discharge operations in bunds, manholes, tanks, excavations and more.

SPECIFICATION:

| CODE | PRODUCT | PRODUCT SIZE | FLOW RATE DATA | ABSORBENCY /CAPACITY |
|-------------------|--|--------------|----------------|----------------------|
| GRR 01 07 01 EVAC | Low Gauge Oil and Sediment Filtration System (Filtration System c/w 2" Cam Fitting - 1 Micron) | 130cm x 30cm | 300 L/min | 2.5L. Oil, 20kg Sed |
| GRR 01 07 50 EVAC | Low Gauge Oil and Sediment Filtration System (Filtration System c/w Collar - 1 Micron) | 180cm x 30cm | 300 L/min | 2.5L. Oil, 20kg Sed |





OIL AND SEDIMENT DEWATERING FILTER

Eradicate risk of costly fines and clean-ups with our filter.

- Re-usable sediment filter*
- Retains 2.5 litres of hydrocarbon sheen
- Mitigates vacuum tankering fees and reduces site downtime
- Easy to use and quick to attach
- Water discharged to environmental regulators' accepted levels - sediment particles down to 150µm
- Filter bag holds 20kg of sediment for single person safe handling
- Hydrocarbon presence integral detector
- Lightweight and highly visible colour to avoid Health and Safety incidents
- Lifting straps for safe and easy handling
- Simple emptying and sediment washout

FOR UTILITY EXCAVATIONS ELECTRIC CABLES, GAS AND WATER PIPES

HOW IT WORKS

Our Oil and Sediment Dewatering Filter delivers tangible site operation savings with on-site time and costs reduced with enhanced site safety levels.

Our filter was specifically developed to handle the environmental challenges from oil and sediment pollution faced by operators and contractors. Its usage helps avoid costly fines.

Utilises a multi-layered filter system of nylon monofilament for capturing sediment particles and layers of polypropylene nonwoven material for oil absorbency. This is housed within a high visibility nylon outer sleeve for durability and protection. Our oil and sediment filter is made from high quality materials sourced from responsible suppliers, all being non-hazardous and not classified.

*When used with oil, must be replaced.

SPECIFICATION:

| CODE | PRODUCT | PRODUCT SIZE | FLOW RATE DATA | ABSORBENCY /CAPACITY |
|-------------------|---|--------------|----------------|----------------------|
| GRR 01 00 01 OILS | Oil and Sediment Dewatering Filter - 150 Micron | 150cm x 35cm | 300 L/min | 2.5L. Oil, 20kg Sed |





MULTI-FILTER MANIFOLD SYSTEM

Remove sediment from high volumes of water with this multi-filter system.

- Allows a high volume of filtered water to transit from site
- Compatible with our full filter range
- Can be used, removed and attached by one person
- Mitigates vacuum tankering fees and reduces site downtime
- Available for use with 4, 6 or 8 filters
- Can process high volumes of water
- Rugged design for site use
- Reduces pressure on filter system



FOR HIGH VOLUME WATER FILTRATION

HOW IT WORKS

The manifold systems are designed to allow high volumes of water to be processed through Green Rhino® filters. Multiple filters can be set up allowing for a steady continuous flow of water even when using high bore pumps. It can function as a "step-down" unit to reduce and disperse water volumes whilst allowing maximum filtration.

SPECIFICATION:

| CODE | PRODUCT | PRODUCT SIZE |
|-------------------|--|-------------------|
| GRR 99 01 04 MSYS | Multi Filter Manifold System - 4 Gang c/w 4" Bauer Fitting | 97.5cm x 111.2cm |
| GRR 99 01 06 MSYS | Multi Filter Manifold System - 6 Gang c/w 4" Bauer Fitting | 147.7cm x 111.2cm |
| GRR 99 01 08 MSYS | Multi Filter Manifold System - 8 Gang c/w 6" Bauer Fitting | 197.9cm x 111.2cm |





1



2



3



QUICK RESPONSE OIL AND SEDIMENT DEWATERING PACK

This pack contains unique oil retention pillows that turn spills into rubber in minutes.

- All-in-one hydrocarbon and sediment pollution control kit
- Mitigates vacuum tankering fees and reduces site downtime
- Offers quick on-site response and mitigates site closures
- Fast and cost effective solution for contaminated water
- Hydrocarbon captured and encapsulated in the smart polymer
- Removes hydrocarbons to non-detectable levels
- Ideal for medium volume levels of hydrocarbon contamination
- Filter removes sediment particles down to 150µm and holds up to 20kg
- Lightweight/compact size for safe transportation and storage
- Can be disposed of in standard hazardous waste container
- Helps avoid fines and prosecutions from environmental regulators

FOR LOW TO MEDIUM VOLUME OIL AND SEDIMENT DEWATERING

HOW IT WORKS

Our quick response pollution control kit is designed to be used where high volumes of contaminated water are present with low to medium levels of hydrocarbon pollution. We use our polymer technology inside a pillow casing to remove all hydrocarbons dispersed in water, whether they are in the emulsified or dissolved phase and the heavier collection of sedimentation (settled) oil which lay on the bed of the excavation, any remaining surface (sheen) oil and suspended particles (sediment) are removed by the filter.

SPECIFICATION:

| CODE | PRODUCT | PRODUCT SIZE | ABSORBENCY/CAPACITY |
|-------------------|---|--------------------|----------------------|
| GRR 02 00 05 DWAT | Quick Response Oil and Sediment Dewatering Pack - 5 Pillow | 46cm x 34cm x 34cm | 7.5L. Oil, 20kg Sed |
| GRR 02 00 10 DWAT | Quick Response Oil and Sediment Dewatering Pack - 10 Pillow | 46cm x 34cm x 34cm | 12.5L. Oil, 20kg Sed |
| GRR 02 00 15 DWAT | Quick Response Oil and Sediment Dewatering Pack - 15 Pillow | 46cm x 34cm x 34cm | 17.5L. Oil, 20kg Sed |

REFILL OIL RETENTION PILLOWS

| | | |
|-------------------|---|----------|
| GRR 02 01 05 REFI | Polymer 5 Pillow Refil Pack c/w disposable bag | 5L. Oil |
| GRR 02 01 10 REFI | Polymer 10 Pillow Refil Pack c/w disposable bag | 10L. Oil |
| GRR 02 01 15 REFI | Polymer 15 Pillow Refil Pack c/w disposable bag | 15L. Oil |
| GRR 02 01 30 REFI | Polymer 30 Pillow Refil Pack c/w disposable bag | 30L. Oil |





DRIP AND SPILL
RETENTION



OIL RETENTION PILLOW

Our pillows contain unique polymer technology that turns oil into rubber in minutes.

- Quick and efficient reactive pollution solution
- Mitigates vacuum tankering fees and reduces site downtime
- Prevents site closures with immediate on-site response
- 3 sizes available
- Hydrocarbon captured and encapsulated in the smart polymer
- Removes hydrocarbons to non-detectable levels
- Lightweight/compact size for safe transportation and storage
- Can be disposed of in a standard hazardous waste container
- Helps avoid fines and prosecutions from environmental regulators

FOR LOW TO MEDIUM LEVELS OF OIL CONTAMINATION IN WATER

HOW IT WORKS

Our Oil Retention Pillows provide managers with an easy solution for environmental compliance and pollution control. This gives you the ability to effectively respond on site with no third party contractor call-outs. Utilising our smart polymer technology inside a pillow casing means that you can remove all hydrocarbons dispersed in water, whether they are in the emulsified or dissolved phase and the heavier collection of sedimentation which lay on the bed of the excavation, any remaining surface (sheen) oil and suspended particles (sediment) can be removed by our in-line Oil and Sediment Dewatering Filter (supplied separately).

Our pillows use our innovative smart polymer technology which converts hydrocarbon fluids into a solid rubber mass by bonding and encapsulation of the hydrocarbon molecules. Once in this solid state the polymer media will not allow the hydrocarbons to leak or be compressed out of the rubber-like solid. This ultimately prevents the toxic properties of hydrocarbons being passed into the environment.

SPECIFICATION:

| CODE | PRODUCT | PRODUCT SIZE | ABSORBENCY/CAPACITY |
|-------------------|---------------------------------|--------------|---------------------|
| GRR 02 50 01 PILL | Oil Retention Pillow 1L. - 250g | 30cm x 30cm | 1L. Oil |
| GRR 02 50 04 PILL | Oil Retention Pillow 4L. - 1kg | 60cm x 60cm | 4L. Oil |
| GRR 02 50 08 PILL | Oil Retention Pillow 8L. - 2kg | 100cm x 72cm | 8L. Oil |



Pillow is added to the oil.



Leave for 10 minutes.



The oil is removed.



ENVIROHORN DRAIN FILTER

A great solution to prevent drain blockages and pollution from exiting your site.

- Quick and efficient pollution solution
- Reduces site downtime
- Filter horns retain 19 or 21kg of sediment for safe manual handling
- Removes sediment particles down to 100µm oil/sediment version retains 1 litre of hydrocarbon sheen
- Economical and ideal for low utilisation sediment only applications
- Quick set-up and straightforward to use
- Lightweight and highly visible (orange or yellow) base panel
- Simple emptying and disposal
- Eliminate time consuming and cost of regular drain unblocking

TO PREVENT SEDIMENT FROM ENTERING THE DRAINAGE SYSTEM

HOW IT WORKS

The EnviroHorn Drain Filter is a simple but effective solution for mitigating the risk of pollution from oil and/or sediment during operations. The filters which are available in sediment only and oil and sediment configurations are inserted into the drain, cut down to the appropriate size and can be left in-situ to collect contaminants. This product offers a great solution for preventing drain blockages, the filters can be removed and washed through for re-use as necessary.

* Tape not supplied

SPECIFICATION:

| CODE | PRODUCT | ABSORBENCY/CAPACITY | | |
|-------------------|------------------------------------|----------------------|-----------|-------------------|
| GRR 10 00 01 EHRN | EnviroHorn Oil and Sediment Filter | 25cm Dia, 40cm Depth | 130 L/min | 1L. Oil, 19kg Sed |
| GRR 10 01 01 EHRN | EnviroHorn Sediment Filter | 25cm Dia, 40cm Depth | 140 L/min | 21kg Sediment |





ENVIROBUCKET MANUAL BAILER

A great solution for small and shallow excavations.

- Prevents sediment pollution down to 50µm
- Prevent need for jet washing pavements and the public highway
- Compact and economical solution
- Quick and easy to use
- Amey 'DEN' gold award winning product

FOR SMALL AND SHALLOW EXCAVATIONS

HOW IT WORKS

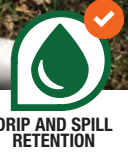
The EnviroBucket filter has been developed to tackle the dewatering of shallow water filled trenches. In these instances the excavation is too small to utilise a pump. The operative is able to manually pour the water into the EnviroBucket, the water flows through the sediment filter and exits the container via a flexible hose pipe. The sediment particles (to 50µm) are captured in the filter media, the retained sediment can then be placed back into the trench on completion of works. If oil is present in the water, the addition of a polymer pillow can remove up to one litre of oil, by turning into a rubber like solid that will not leak.



SPECIFICATION:

| CODE | PRODUCT | PRODUCT SIZE | FLOW RATE DATA | ABSORBENCY /CAPACITY |
|---------------------|---|--------------------|----------------|----------------------|
| GRR 02 02 01 EBKT | EnviroBucket (Manual Bailer) - 50 Micron | 46cm x 34cm x 34cm | 30 L/min | 15kg sediment |
| REFILL PACKS | | | | |
| GRR 02 02 51 REFI | EnviroBucket Polymer Pillow Refill Pack - 2 x 250g | | | 1L. of oil ea. |
| GRR 02 02 61 REFI | EnviroBucket Sediment Filter Refill Pk 5 - 50 Micron | 60cm x 47.5cm | 30 L/min | 15kg of sediment ea. |





Oil is added to water.



Green Rhino CG1 Polymer is added.



The spill is solidified.



OIL SOLIDIFYING RETENTION BOOM

Boom turns oil spills into rubber with no leakage.

- Quick and easy to deploy
- Creates a high performance barrier
- Great reactive solution for oil spills in waters
- Turns oil into rubber with no leakage
- Creates a rubber barrier around the spill
- Prevent costly fines
- Reusable until the loose polymers inside become solid

FOR CONTAINMENT OF OIL SPILLS IN WATER

HOW IT WORKS

POLYMER MARINE BOOM

Our Marine Boom can be used to contain hydrocarbon spills in waters with currents, as well as calm waters such as harbours, streams, rivers and tidal areas. A longer term solution for spill retention. Hydrocarbon is captured and encapsulated in our smart polymer contained within the boom and turned into rubber.

The Marine Boom is ideal for use near construction sites or in marinas where there are fuel docks and where currents or tides are present. The Marine Boom can be placed in scuppers to prevent hydrocarbon run-off from surface water from commercial vehicles or vessels.

POLYMER QUICK DEPLOYMENT BOOM

A mobile version of our Marine Boom, this solution is designed to be part of an operatives kit and to be used as a reactive solution to smaller oil spills on land and in water. A quick and effective way to contain a spill in the shorter term.

This device can also be used on land applications to prevent hydrocarbons from entering storm drains. The outer skin is made of spun-bond mesh and filled with our polymer granules.

SPECIFICATION:

| CODE | PRODUCT | PRODUCT SIZE | ABSORBENCY /CAPACITY |
|-------------------|-------------------------------|----------------|----------------------|
| GRR 02 80 01 BOOM | Polymer Quick Deployment Boom | 4.5cm x 100cm | 1.6 L. Oil |
| GRR 02 80 02 BOOM | Polymer Quick Deployment Boom | 4.5cm x 200cm | 3.2 L. Oil |
| GRR 02 80 03 BOOM | Polymer Quick Deployment Boom | 4.5cm x 300cm | 4.8 L. Oil |
| GRR 02 80 04 BOOM | Polymer Quick Deployment Boom | 4.5cm x 400cm | 6.4 L. Oil |
| GRR 02 80 05 BOOM | Polymer Quick Deployment Boom | 4.5cm x 500cm | 8 L. Oil |
| GRR 02 80 06 BOOM | Polymer Quick Deployment Boom | 4.5cm x 600cm | 9.6 L. Oil |
| GRR 02 80 07 BOOM | Polymer Quick Deployment Boom | 4.5cm x 700cm | 11.2 L. Oil |
| GRR 02 80 08 BOOM | Polymer Quick Deployment Boom | 4.5cm x 800cm | 12.8 L. Oil |
| GRR 02 80 12 BOOM | Polymer Quick Deployment Boom | 4.5cm x 1200cm | 19.2 L. Oil |
| GRR 02 80 15 BOOM | Polymer Quick Deployment Boom | 4.5cm x 1500cm | 24 L. Oil |
| GRR 02 80 30 BOOM | Polymer Quick Deployment Boom | 4.5cm x 3000cm | 48 L. Oil |
| GRR 02 82 01 BOOM | Polymer Marine Boom | 7.75cm x 100cm | 3.2 L. Oil |
| GRR 02 82 02 BOOM | Polymer Marine Boom | 7.75cm x 200cm | 6.4 L. Oil |
| GRR 02 82 03 BOOM | Polymer Marine Boom | 7.75cm x 300cm | 9.6 L. Oil |
| GRR 02 82 04 BOOM | Polymer Marine Boom | 7.75cm x 400cm | 12.8 L. Oil |
| GRR 02 82 05 BOOM | Polymer Marine Boom | 7.75cm x 500cm | 16 L. Oil |
| GRR 02 82 06 BOOM | Polymer Marine Boom | 7.75cm x 600cm | 19.2 L. Oil |
| GRR 02 82 07 BOOM | Polymer Marine Boom | 7.75cm x 700cm | 22.4 L. Oil |
| GRR 02 82 08 BOOM | Polymer Marine Boom | 7.75cm x 800cm | 25.6 L. Oil |

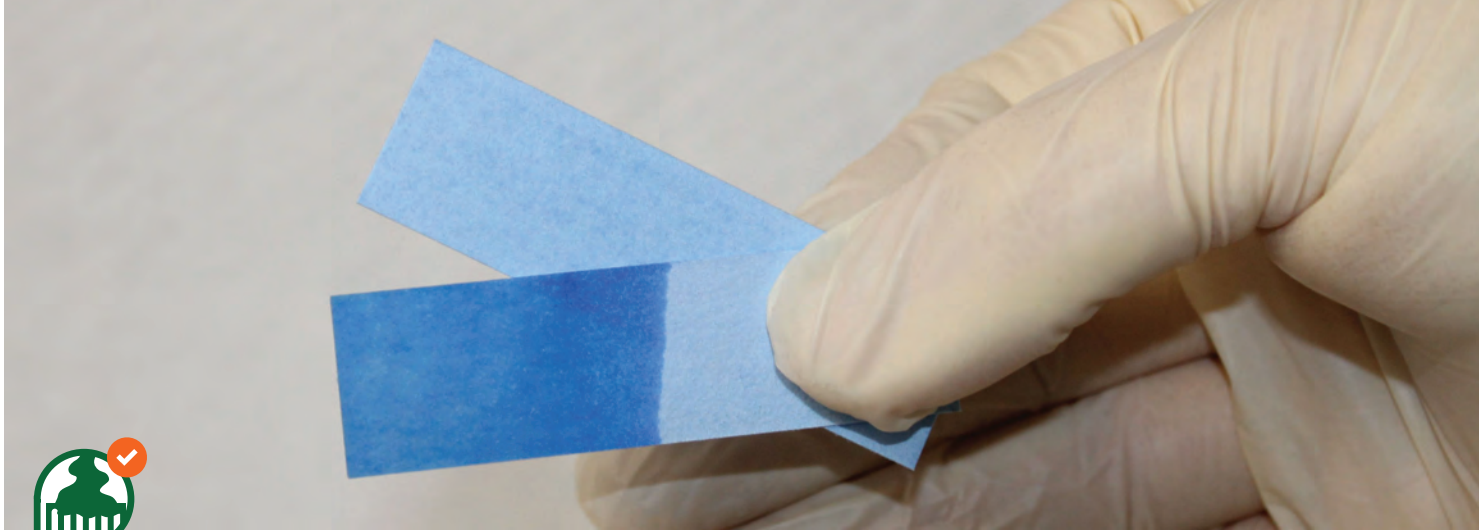


Considerate Constructors Scheme
BEST PRACTICE HUB

[ccsbestpractice.org.uk/entries/
reducing-the-impact-of-spillages-near-watercourses/](https://ccsbestpractice.org.uk/entries/reducing-the-impact-of-spillages-near-watercourses/)
[ccsbestpractice.org.uk/wp-content/uploads/2016/01/
Environmental-Good-Practice-Polymer-Boom-2.pdf](https://ccsbestpractice.org.uk/wp-content/uploads/2016/01/Environmental-Good-Practice-Polymer-Boom-2.pdf)



FS 599906 EMS 599907



HYDROCARBON DETECTION STRIPS

Quick and easy detection of hydrocarbons.

- 100 per pack
- Quick and easy to use by operatives
- Results in seconds

FOR QUICK HYDROCARBON DETECTION

HOW IT WORKS

Green Rhino® Hydrocarbon Detection Strips give an immediate visual indication of oil presence in water. These handy paper based strips allow managers with responsibility for environmental compliance and pollution control to quickly and accurately test excavations or standing water pools for the presence of any hydrocarbons.

The hydrocarbon detection paper strips are supplied with a light blue hue colour which will convert to a darker blue when immersed in water and where hydrocarbons are present, if the detection strip is applied to clean and pure water the blue colour hue will not change and the paper will remain unmoistened.

The detection strip sensitivity is reliant on the solubility of the hydrocarbon present in the water. It is recommended that the user manipulates the detection strip back and forth a small number of times at the surface to facilitate the above referenced results.



SPECIFICATION:

| CODE | PRODUCT | PRODUCT SIZE |
|-------------------|---|--------------|
| GRR 99 99 01 HDST | Hydrocarbon Detection Strips - 100 Strips | 8cm x 5cm |



GREEN RHINO® ASSET RESILIENCE

Designed for processing contaminated surface water from bunds, tanks and drainage outfalls.

The Green Rhino® range of Asset Resilience products is designed to remove hydrocarbons from contaminated water. These highly innovative products are simple to install and offer a reliable, low cost solution for the challenge of contaminated water on site.

These systems can be utilised in place of oil discriminating pumps, interceptors, vacuum tankers and more.

Our filtration media allows us to offer simple but effective solutions that require no mains electricity feed or mechanical parts. Whether it's a fuel storage depot, oil filled assets or simply drainage for high volumes of water on site, our range of industrial filters makes for an easy low maintenance solution, that can deliver significant time and cost efficiencies to your business operation.



HYDROCARBON REMOVAL CARTRIDGE

Preventing pollution on your site.

- Water remedial cartridge with smart polymer technology
- Hydrocarbons captured and encapsulated in the smart polymer media
- Prevents hydrocarbons/sediment from leaving the containment area
- Flow rate from 6 to 15 L/min
- Automatic system shut down at oil saturation point
- Easy clean out and low maintenance
- Highly effective alternative to oil discriminating pumps and oil water separators
- No mechanical parts or mains electricity required
- 2 versions available

FILTERS HYDROCARBONS ALLOWING SURFACE WATER TO DRAIN NATURALLY

HOW IT WORKS

Our Hydrocarbon Removal Cartridges (HRC) are designed to remove hydrocarbons and sediment contaminants from groundwater accumulation in bunded areas or as part of a pollution prevention drainage solution on your site.

A variety of hydrocarbons can be captured, including dielectric fluids, oil, diesel and used motor oils. The contaminants are absorbed by the smart filtration technology which bond with the hydrocarbon molecules to efficiently encapsulate and solidify hydrocarbons internally in the cartridge. This allows filtered groundwater to pass unimpeded through the filter. The discharged water conforms to the EA PPG3 guidelines for discharge to surface drains and into the environment, achieving a discharge concentration of <5mg/litre of oil under standard test conditions.

When the filters start to reach their hydrocarbon absorption capacity the flow of groundwater will become increasingly restricted, until the cartridge automatically shuts down. This prevents any polluted groundwater from leaving the containment area or entering the filter ensuring that no contaminates are introduced in to the environment, even if a catastrophic breach occurs. The hydrocarbons and sediment filters are conveniently enclosed within one cartridge body eliminating the need for two individual filters to be connected in series. The sediment filter is easily accessed for inspection and cleaned by back flushing the cartridge from the discharge side of the cartridge with clean water.

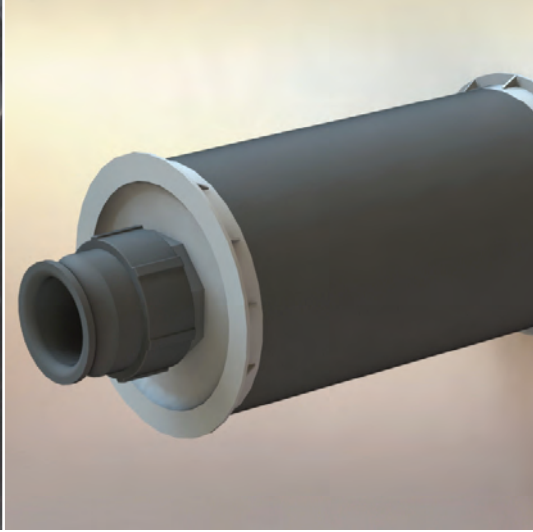
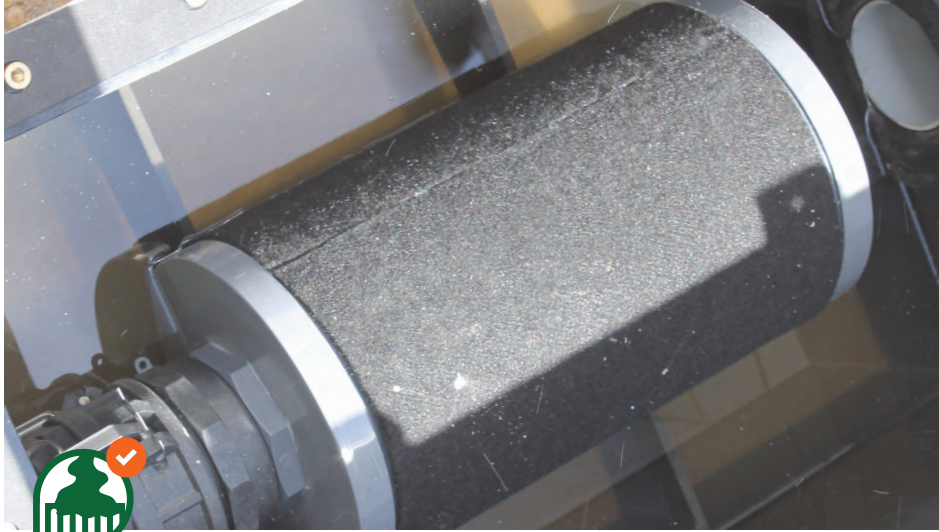
SPECIFICATION:

| CODE | PRODUCT | PRODUCT SIZE | FLOW RATE DATA | ABSORBENCY /CAPACITY |
|---------------------------------|--|-----------------|----------------|----------------------|
| GRR 03 00 00 HRC | HRC Type 1 c/w 1.5" Thread Fitting | 40.5cm x 10cm | 6 L/min | 1 L. Oil |
| GRR 03 00 20 HRC | HRC Type 2 c/w 2" Thread Fitting | 64.7cm x 11.4cm | 15 L/min | 2.5 L. Oil |
| FITTING KITS | | | | |
| GRR 03 51 00 FITK | Type 1 Fitting Kit - ABS, 1.5" - 1.5" Male Thread Fitting | 25.9cm x 16.2cm | | |
| GRR 03 51 01 FITK | Type 1 Fitting Kit - ABS, 1.5" - 2" Threaded Bush | 26.1cm x 19.1cm | | |
| GRR 03 51 02 FITK | Type 1 Fitting Kit - ABS, 1.5" - 1.5" Male Thread Fitting XL | 25.9cm x 66.2cm | | |
| GRR 03 51 50 FITK | Type 1 Fitting Kit - S/S, 1.5" - 1.5" Male Thread Hex Nipple | 22.7cm x 13.5cm | | |
| GRR 03 52 00 FITK | Type 2 Fitting Kit - ABS, 2" - 2" Male Thread Fitting | 28.6cm x 17.5cm | | |
| GRR 03 52 01 FITK | Type 2 Fitting Kit - ABS, 2" - 2" Male Thread Fitting XL | 28.9cm x 67.3cm | | |
| GRR 03 52 50 FITK | Type 2 Fitting Kit - S/S, 2" - 2" Male Thread Hex Nipple | 26.5cm x 15.1cm | | |
| CARTRIDGE MOUNT BRACKETS | | | | |
| GRR 03 99 03 BRKT | Mount Bracket 3" - Plastic (Type 1 Filter) | 7.2cm x 11.5cm | | |
| GRR 03 99 04 BRKT | Mount Bracket 4" - Plastic (Type 2 Filter) | 8.1cm x 13.9cm | | |


Considerate Constructors Scheme
BEST PRACTICE HUB
ccsbestpractice.org.uk/entries/drip-tray-hydrocarbon-removal-cartridge/



FS 599906 EMS 599907



HYDROCARBON REMOVAL FILTER – HIGH FLOW

Preventing pollution on your site.

- Water remedial filter with smart polymer technology
- High flow performance
- Hydrocarbons captured and encapsulated in the smart polymer media
- Integral sediment capture to 150µm
- Retains 14 litres of hydrocarbons
- Prevents hydrocarbons/sediment from leaving the containment area
- Flow Rate 80 L/min
- Automatic system shut down at oil saturation point
- Easy clean out and low maintenance
- Highly effective alternative to oil discriminating pumps and oil water separators

FILTERS HYDROCARBONS ALLOWING SURFACE WATER TO DRAIN NATURALLY

HOW IT WORKS

Our Hydrocarbon Removal Filters (HRF) are designed to remove hydrocarbons and sediment contaminants from groundwater accumulation in bunded areas, outfalls or as part of any pollution prevention drainage solution on your site, where hydrocarbons risk entering the environment.

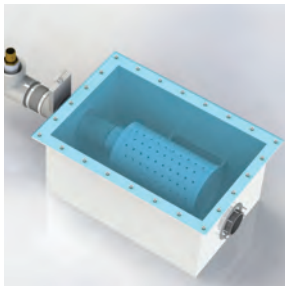
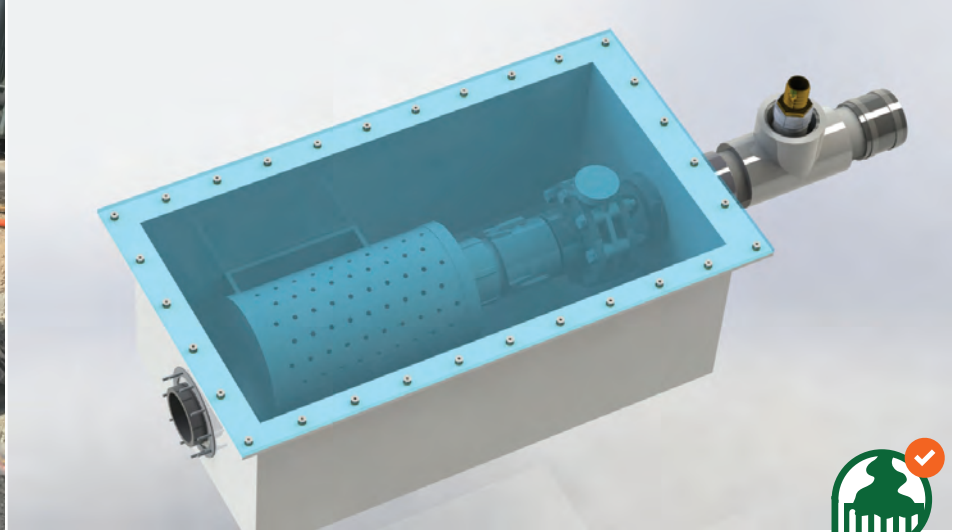
A variety of hydrocarbons can be captured, including dielectric fluids, oil, diesel and used motor oils. The contaminants are absorbed by the smart filtration technology which bond with the hydrocarbon molecules to efficiently encapsulate and solidify hydrocarbons internally in the cartridge. This allows filtered groundwater to pass unimpeded through the filter. The filtered water conforms to the EA PPG3 guidelines for discharge to surface drains, achieving a concentration of <5mg/litre of oil under standard test conditions.

When the filters start to reach their hydrocarbon absorption capacity the flow of groundwater will become increasingly restricted until the cartridge automatically shuts down. This prevents any polluted groundwater from leaving the containment area or entering the filter ensuring that no contaminants are introduced in to the environment, even if a catastrophic breach occurs. The hydrocarbons and sediment filters are conveniently enclosed within one filtration body eliminating the need for two individual filters to be connected in series.

SPECIFICATION:

| CODE | PRODUCT | PRODUCT SIZE | FLOW RATE DATA | ABSORBENCY /CAPACITY |
|------------------|---|-----------------|----------------|----------------------|
| GRR 03 10 00 HRF | Hydrocarbon Removal Filter Type 3 Filter c/w 4" Camlock Fitting (HRF) | 59.3cm x 28.4cm | 80 L/min | 14 L. Oil |





BUND OVERPUMP INLINE FILTRATION SYSTEM

Preventing pollution on your site.

- Effective alternative to oil discriminating pumps and interceptors
- Reduces hydrocarbon pollution to non-detect levels
- No mechanical parts or mains electricity required
- Non-intrusive design, can be used above or below ground
- Quick installation for immediate use with minimal site disruption
- Specifically developed to filter out hydrocarbons
- Flow rates up to 80 L/min
- Smart polymer media filters used to target and remove contaminants
- Hydrocarbon retention of 14 litres

OVERPUMP AND FILTER CONTAMINATED BUND WATER

HOW IT WORKS

Our Bund Overpump Inline Filtration System is designed for processing surface water. The system can be installed at sites that potentially pose the risk of discharging hydrocarbon contaminated water into the environment, such as hydrocarbons from bunds and other secondary containment units.

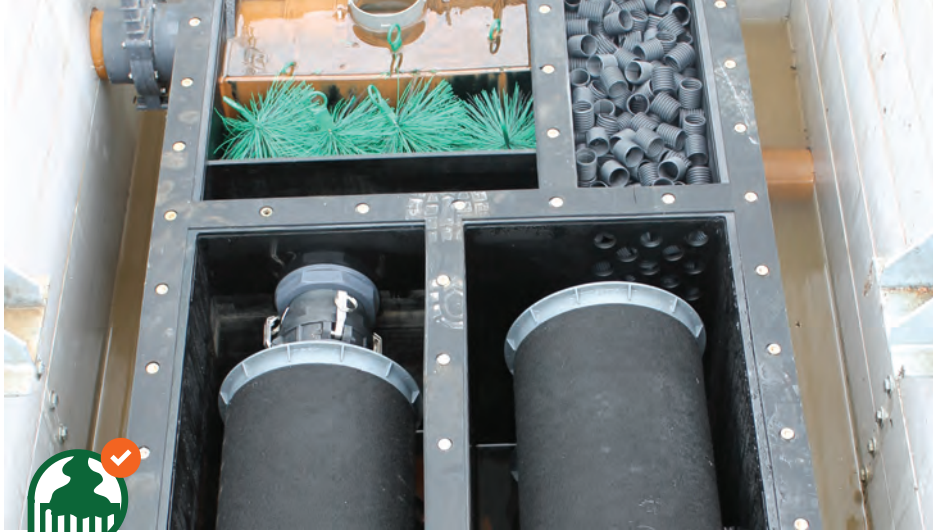
The stand-alone unit can be easily fitted to existing bunds and can either be placed above ground within or outside the bund system. Two options are available for either working in collaboration with existing oil discriminating pumps, or a gravity fed below ground configuration that is fitted to the main point of site drainage.

The filtration system allows surface water to be processed at up to 80 L/min and retains 14 litres of hydrocarbon before automatically shutting off. The system uses an integral hydrocarbon and sediment filter which discharge water to ≤ 0.1 ppm oil concentration.

SPECIFICATION:

| CODE | PRODUCT | PRODUCT SIZE | FLOW RATE DATA | ABSORBENCY /CAPACITY |
|------------------|---|-----------------------|----------------|----------------------|
| GRR 92 20 01 WRC | Bund Overpump Inline filtration system - 1 Filter (Complete Excluding Filter) | 409mm x 554mm x 115mm | 80 L/min | 14 L. Oil |
| FILTER | | | | |
| GRR 03 10 00 HRF | Hydrocarbon Removal Filter Type 3 Filter c/w 4" Camlock Fitting (HRF) | 593mm x 284mm | 80 L/min | 14 L. Oil |

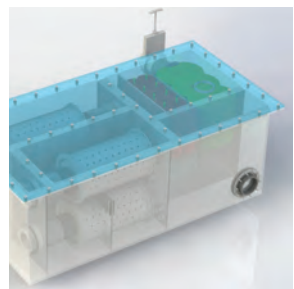
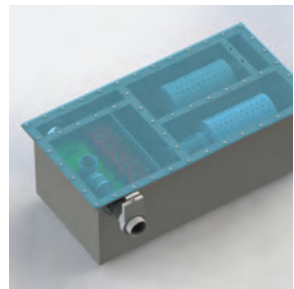




WATER REMEDIATION CHAMBER

Preventing pollution from exiting your site.

- Mitigates the need for vacuum tankering
- Processes surface water, whilst removing contaminants
- Reduces hydrocarbon pollution to non-detect levels
- No electricity required
- Quick installation for immediate use
- Specifically developed to filter out hydrocarbons and creosote
- Built to Class 1 full retention oil water separator PPG3 guidelines
- Flow rates up to 160 L/min or prescribed per application
- Smart polymer media filters used to target and remove contaminants
- Hydrocarbon retention up to 56 litres
- Available in three chamber sizes (configured to your specification)



FOR REMOVING HYDROCARBONS AND CREOSOTE CONTAMINANTS FROM SECONDARY CONTAINMENT SYSTEMS

HOW IT WORKS

The Green Rhino® Water Remediation Chamber is for processing surface water. The system can be installed at sites that potentially pose the risk of discharging hydrocarbon contaminated water into the environment, such as hydrocarbons from depots, utility bunds or creosote from utility poles and sleeper storage facilities.

The system utilises a number of proprietary filters for removing polluting compounds found in EU specification creosote, these contaminants include hydrocarbons, phenols and cresols.

The chamber allows surface water to be processed at up to 160 L/min and retains up to 56 litre of hydrocarbon while removing contaminants to acceptable Environmental Agency levels prior to discharge. The system can be used to replace or to complement oil water separation systems where it is essential to prevent pollutants from entering the environment.

The system is a sealed unit that can be used in high risk flood areas and can be either installed at new or retrofitted to existing sites.

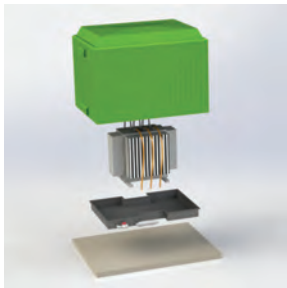
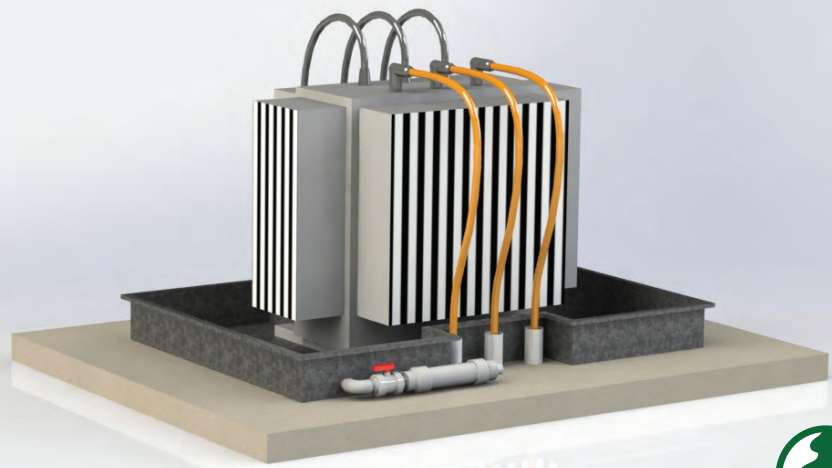
The system uses an integral hydrocarbon and sediment filter which discharge water to ≤0.1 ppm oil concentration.

Available in three standard sizes depending on your site specification and requirements.

SPECIFICATION:

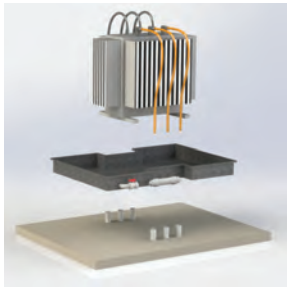
| CODE | PRODUCT | PRODUCT SIZE | FLOW RATE DATA | ABSORBENCY /CAPACITY |
|------------------|---|------------------------|-----------------|------------------------------|
| GRR 92 10 04 WRC | Water Remediation Chamber - 4 Filter (Complete excluding filters) | 1670mm x 860mm x 605mm | Up to 160 L/min | Up to 56 L. Oil |
| GRR 92 10 02 WRC | Water Remediation Chamber - 2 Filter (Complete Excluding Filter) | 1670mm x 860mm x 308mm | Up to 160 L/min | Up to 28 L. Oil |
| GRR 92 20 02 WRC | Water Remediation Chamber - 1 Filter* (Complete Excluding Filter) | 409mm x 554mm x 115mm | 80 L/min | 14 L. Oil (N/A for Creosote) |

* Filters sold separately. Call for details.

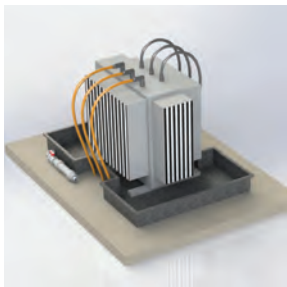


STEEL SECONDARY CONTAINMENT SYSTEM - DISTRIBUTION TRANSFORMERS & SPECIALS

Preventing pollution on your site.



- Quick installation (within one working day)
- Alternative to reinforced concrete solution
- Significantly reduced installation time
- Available in a variety of sizes or as a bespoke solution
- High quality galvanized carbon steel bund & filter valve attachment
- Oil & water leak-tight containment system
- Allows electric cables
- Steel bunds for larger power or transmission grid transformers
- Containment fire suppression system option
- Steel bunds for most makes & models of distribution transformers
- Compatible with Green Rhino® hydrocarbon filtration products



SECONDARY CONTAINMENT FOR SMALLER SCALE POWER OR TRANSMISSION GRID TRANSFORMERS

HOW IT WORKS

Green Rhino® Steel Secondary Containment Systems offer operators of oil filled transformers an extremely cost effective and practical solution in providing oil containment for smaller power or transmission grid transformers. The speed that these bunds can be installed significantly reduces time on site, with most installs taking place within one day.

Our carbon steel containment systems are manufactured to the highest fabrication standards typically using 5mm carbon steel, grit blasted with a 85µm galvanised finish giving a 30-year life for external applications. The containment retention integrity is fully tested using a NDT liquid penetrant of magnetic particle inspection, self certified with a PCN Level 2 certificate prior to leaving our factory. Utilising resistance seam welding joints to BS EN ISO 5817: 2014, Quality Level B which fuses the sheet metal surfaces together at the highest possible quality level to produce a continuous leak-tight seam.

The system requires a compacted hard, flat surface to sit on and comes with an earthing/grounding flexible copper braid connection to ensure optimum electrical conductivity. Acoustic noise and vibration pollution dampers are utilised where necessary to enable the installation to be as non-intrusive as possible to the local community.



SPECIFICATION:

| CODE | PRODUCT | PRODUCT SIZE | ABSORBENCY /CAPACITY |
|-------------------|---|----------------------------|--|
| GRR 90 10 01 BUND | Steel Secondary Containment System - Distribution Transformers & Specials | 200cm x1350cm x 400cm (OD) | 776 L. (not incl. displacement of assets) |



STEEL SECONDARY CONTAINMENT SYSTEM - POWER AND TRANSMISSION TRANSFORMERS

Preventing pollution on your site.

- Quick installation (within one working day)
- Alternative to reinforced concrete solution
- Significantly reduced installation time
- Available in a variety of sizes or as a bespoke solution
- High quality galvanized carbon steel bund & filter valve attachment
- Oil & water leak-tight containment system
- Steel bunds for larger power or transmission grid transformers
- Containment fire suppression system option



SECONDARY CONTAINMENT FOR LARGER POWER OR TRANSMISSION GRID TRANSFORMERS

HOW IT WORKS

Green Rhino® Steel Secondary Containment Systems offer operators of oil filled transformers an extremely cost effective and practical solution in providing oil containment for larger power or transmission grid transformers. Traditional concrete based containment systems are expensive and require lengthy on-site construction times, whereas our steel containment bunds can be installed exceptionally quickly – often within one day.

The containment retention integrity is fully tested using a NDT liquid penetrant or magnetic particle inspection, self-certified with a PCN Level 2 certificate prior to leaving our factory. Utilising resistance seam welding joints to BS EN ISO 5817: 2014, Quality Level B which fuses the sheet metal surfaces together at the highest possible quality level to produce a continuous leak-tight seam.

Individual containment design size and shape is dependent on the type of transformer i.e. number and position of the cooling radiators, cable approach (above or below ground) and connection point; the Green Rhino® secondary containment system delivers complete flexibility which embraces all the necessary design challenges and provides a fully engineered manufactured solution delivered to site in a short period.

This system requires a suitably reinforced concrete flat base and comes with an earthing/grounding flexible copper braid connection to ensure optimum electrical conductivity. Acoustic noise and vibration pollution dampers are utilised where necessary to enable the installation to be as non-intrusive as possible to the local community.

SPECIFICATION:

| CODE | PRODUCT | PRODUCT SIZE | ABSORBENCY /CAPACITY |
|-------------------|---|---------------------------|--|
| GRR 90 10 02 BUND | Steel Secondary Containment System - Power & Transmission Transformers | 550cm x 240cm x 25cm (OD) | 3,167 L. (not incl. displacement of assets) |





HOW OUR GREEN RHINO® POLYMER FILTRATION TECHNOLOGY WORKS

Green Rhino® utilises a variety of smart polymer filtration media in a number of its products.



Before activation.



After activation, oil is solidified.



Oil is added to water.



Green Rhino® CG1 Polymer is added. The spill is solidified.



Green Rhino® CG1 polymers are all designed to remove hydrocarbons from contaminated water. This technology works on hydrocarbons such as oil, diesel, petrol, hydraulic fluid, transformer oil and much more. The white granular powder has been developed in slightly different grades and blends to cater for specific pollution challenges in the environment.

The effect of this technology means that hydrocarbon contaminants can be removed from water down to non-detect levels in a very short period of time.

The polymer technology works by becoming part of the hydrocarbon liquid, quickly removing the contaminant and holding it permanently so it cannot leak out. The polymers are capable of completely solidifying the spill by turning it into a rubber-like mass for easy removal. This means that high volumes of water with a small percentage of hydrocarbons contaminant can be processed on-site without the use of vacuum tankering.

The polymers have no special COSHH requirements, are non-toxic, non-carcinogenic and harmless to humans and wildlife.

The technology is utilised inside in-line filters, dewatering packs and the EnviroPad® smart drip tray.

The use of this technology allows Green Rhino® to offer simple but highly effective solutions that can replace traditional cumbersome alternatives, which helps reduce your overall costs and site downtime, whilst offering up to 100% efficiency in the removal of contaminants from surface water.



Pillow is added to the oil.



Leave for 10 minutes.



The oil is removed.

TO PURCHASE GREEN RHINO® PRODUCTS, PLEASE CONTACT ONE OF OUR STOCKISTS BELOW:



www.greenham.com



www.parker-direct.com



www.arco.co.uk



www.cidproducts.co.uk



www.newpig.co.uk



www.seddonplant.co.uk



www.jointingtech.co.uk



www.cusack.co.uk



www.darcy.co.uk



www.ktsupplies.com



www.spillcontrolcentre.co.uk



www.lapwinguk.com



Adler and Allan

www.adlerandallan.co.uk



www.cmt.co.uk



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