

# crs Gas purifiers and filters



Efficient | Quality analysis | Low down time

Designed for specific contaminant removal  
to deliver quality output purity levels



Trajan Scientific and Medical manufactures the CRS Gas purifier and filter product range. CRS Gas purifiers ensure the quality of gas being used in your instrumentation, and reliably provide high purity gas, removing contaminants so your analysis is not compromised.

As well, our experience in gas management means we can work with you to find the best CRS gas purifier or filter for your specific needs.

Read on to learn more about our standard products, and their recommended use.

Efficient | Quality analysis  
Low down time



## Advanced Filter System (AFS)

Two part system includes a small stainless steel manifold and a high capacity purifier cartridge. The manifold mounts to a laboratory wall or bench with brackets included in the installation kit and connects to the gas lines with stainless steel compression fittings. The cartridge easily attaches and detaches from the manifold with an assembly knob.

The AFS comes in three configurations to remove a combination of oxygen, moisture, and hydrocarbons (C5 or heavier). They contain high-sensitivity oxygen and moisture indicator. The AFS purifiers can be expected to supply multiple GC installations for an extended period of time depending on the laboratory environment.

### Key features

- Clean flow path, gas contacts only metal, glass and FKM seals.
- High capacity and efficiency in a single cartridge.
- Easy cartridge replacement with twist on/off assembly knob.
- Double seal construction for safety, especially when using hydrogen gas.
- Check valves protect gas lines during cartridge replacement.
- Hardware for wall or bench mount.
- Stainless steel fittings.
- Reconditioning program allows for recycling of cartridge.



## Accessories | Gas purifiers and filters

### ZPure™

ZPure™ gas filters are the core of our broad program of inline purifiers. The ZPure products represent the highest quality and most reasonably priced gas filters both in stainless steel bodies and in shielded glass bodies for applications requiring visual indicators. They offer long life, efficient contaminant removal and come in a various size and fitting configurations for most laboratory analytical applications.



#### Standard filters

- Stainless steel bodies.
- Integrated stainless steel frits for particle removal.
- High capacity absorbents with well-characterized performance data.
- All-metal sealing system.
- Individually helium leak-checked in vacuum.



*Compression fittings seal well and can be broken and retightened many times if used properly. They are compatible with industry standard ferrules and tubing.*

#### Glass filters

- Double seal glass body with polycarbonate shell isolates the gas stream in the event of glass failure.
- Highly sensitive visual indicators for oxygen and water.
- Integrated stainless steel frits for particle removal.
- High capacity absorbents with well-characterized performance data.
- Fluoroelastomer seals for inertness.
- Individually helium leak-checked in vacuum.



Delivering quality output purity levels

## ZPure M

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The ZPure M filters are 3800 cc canisters that have the benefits of the higher flow rates, larger capacities, and are refillable by Trajan in most versions. The canister is made from 316 stainless steel and has stainless steel fitting options in 1/2" VCR, 1/4" compression, and 1/4" quick connect fittings.

ZPure M filters are available in contaminant-specific filters for hydrocarbons, moisture, and multi-contaminant versions including an oxygen/moisture filter and the PolyGas II purifier.



## ZPure Ultra

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The ZPure Ultra line utilizes the same high quality ZPure components but has the addition of metal gasket seals. The line was developed for higher sensitivity applications commonly found in the semiconductor and microelectronics industry.

These high-quality filters are constructed of 316 stainless steel for maximum purity with an electropolished surface finish. They contain a 0.003  $\mu\text{m}$  outlet particle filter, have long lifetimes, and can reach outlet purity to the ppb levels. Available in 2 types of moisture removing media, 3A or 5A, and hydrocarbon removal from the source gas.



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# Accessories | Gas purifiers and filters

## SPure™

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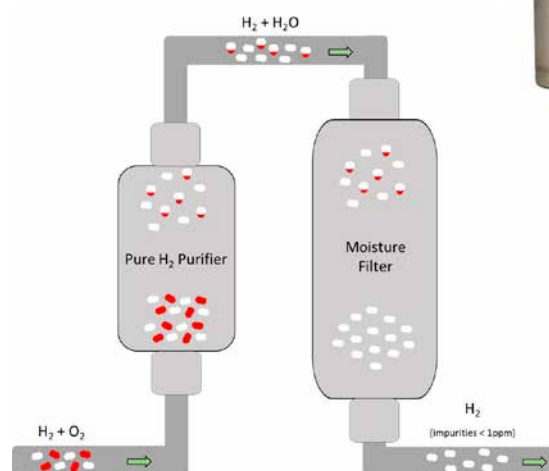
The SPure™ line is a general-purpose filter for removing moisture, oil, and dust from air and inert gases. SPures are made from strong acrylic and polycarbonate with aluminum end caps and use a cobalt free indicator. Not for carrier, compressed air, or hydrogen gas use.



## Infinity hydrogen gas purifier

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The Infinity hydrogen gas purifier is a self regenerating purifier that removes oxygen from hydrogen at ambient temperature. The reaction consumes the oxygen and creates water vapor. When paired with an additional moisture filter, it is the perfect solution for hydrogen generators.



# CRS Gas purifiers and filters

We custom design and build gas filters for special applications. Special requests have included the following:

- Special combinations of absorbents to deliver required output purity levels over a range of flow rates.
- Special fittings or connections for quick-connect, for push-on tube connectors, VCR fittings, or non-standard compression fittings.
- Special sizes or end treatments.
- Proprietary products include highly sensitive moisture and O<sub>2</sub> indicators as well as very high capacity O<sub>2</sub> absorbents.
- Cobalt-free indicating moisture absorbents are used for gas line dryers, both for high-flow low ppm applications and also to meet medium flow ppb highly demanding requirements. These absorbents meet European requirements under REACH.



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Distributed by:



Greyhound Chromatography and Allied Chemicals  
6 Kelvin Park  
Birkenhead  
Merseyside  
CH41 1LT  
United Kingdom

Tel: +44 (0) 151 649 4000

Fax: +44 (0) 151 649 4001

Email: [info@greyhoundchrom.com](mailto:info@greyhoundchrom.com)

Website: [www.greyhoundchrom.com](http://www.greyhoundchrom.com)