

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

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

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 μm 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

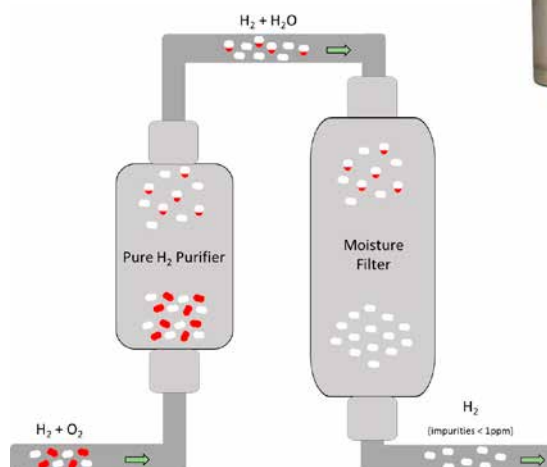
SPure™

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

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 O₂ indicators as well as very high capacity O₂ 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.

Visit us at www.trajanscimed.com or contact your regional Trajan representative for assistance and further information.



Trajan Scientific and Medical

Science that benefits people

Trajan is actively engaged in developing and delivering solutions that have a positive impact on human wellbeing. Our vision revolves around collaborative partnerships that improve workflows, delivering better results.

Accessories | Advanced filter system

A high-capacity gas purifying system that can remove a combination of oxygen, moisture and hydrocarbons, (greater than C4) from inert gases and hydrogen.

Features and benefits

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

Recommended applications

GC and GC/MS carrier gas, ECD make up gas and ICP. The AFS purifiers can be expected to supply multiple installations for an extended period of time depending on the laboratory environment.



	Function	Capacity	Indicator color change	Outlet concentration at nominal flow rate	Nominal flow rate	Max recommended flow rate	Max pressure	Dimensions	Fittings
AFS I	Removes water, oxygen, and hydrocarbons	850 cc oxygen, 12 g water, 8 g hydrocarbons (depending on impurities)	Oxygen: From green to gray	Oxygen < 5 ppb	0.5 SLPM	2 SLPM	13.8 bar / 200 psi	30 cm x 5 cm x 5 cm	1/8" and 1/4" stainless steel fittings
AFS II	Removes water and hydrocarbons	8.8 g water 13 g hydrocarbons (depending on impurities)	Moisture: From blue to pale brown	Moisture < 20 ppb*					
AFS III	Removes water	22 g water	Hydrocarbon: No indicator	Organics < 5 ppb**					

* Water capacity based on an inlet moisture concentration of 200 ppm.

** Hydrocarbons (C5 and heavier); capacity based on 0.05 % pentane inlet concentration.

For more information about this product visit www.trajanscimed.com or contact techsupport@trajanscimed.com

Accessories | Advanced filter system

Part number	Part description and detail
AFS Purifier I	
202912	AFS Purifier I non-hazardous, 1/8" fitting manifold (not for air or O2 use)
202913	AFS Purifier I non-hazardous, 1/4" fitting manifold (not for air or O2 use)
202914	AFS Purifier I non-hazardous replacement cartridge (not for air or O2 use)
AFS Purifier II	
202903	AFS Purifier II Hydrocarbon/moisture, 1/8" fitting manifold
202904	AFS Purifier II Hydrocarbon/moisture, 1/4" fitting manifold
202950	AFS Purifier II Hydrocarbon/moisture replacement cartridge
AFS Purifier III	
202905	AFS Purifier III moisture, 1/8" fitting manifold
202906	AFS Purifier III moisture, 1/4" fitting manifold
202955	AFS Purifier III moisture replacement cartridge

For more information about this product visit www.trajanscimed.com or contact techsupport@trajanscimed.com

Accessories | ZPure™ PolyGas

Pure gas is a critical requirement in gas chromatography, spectroscopy, optics, lithography, and numerous other applications in manufacturing and analytical laboratories. The ZPure™ PolyGas purifiers remove a wide range of contaminants to trace levels.

Features and benefits

- High efficiency in-line traps with outstanding capacity.
- High quality activated adsorbents for long purifier life and efficient contaminant removal.
- Various size and fitting configurations to fit existing installations.
- Filter lifetime is dependent on quality of incoming gas, and the flow rate.
- Individually leak-tested.

Recommended applications

It can be used to purify inert gases, He, Ar, N₂, and H₂, making it ideal for use with GC and GC/MS carrier gas lines. It is also recommended for any application requiring ultra-pure gas free from oxygen, water and hydrocarbons (heavier than butane).

Product specifications

PolyGas I							
Volume	Function	Capacity (nominal-max)	Outlet concentration at nominal flow rate	Flow rate (nominal-max)	Max pressure	Dimensions	Fittings
130 cc	Removes oxygen, water, CO ₂ , CO, halogenated compounds, siloxanes, hydrocarbons heavier than butane, sulfur-containing molecules, ammonia and other gases	178 - 301 cc oxygen 2.8 - 4.3 g water 3.75 - 12.5 g hydrocarbons	Oxygen < 5 ppb Moisture < 20 ppb Organics < 5 ppb	320 cc/min - 1 SLPM	68.9 bar / 1000 psi 13.8 bar / 200 psi	3.2 cm x 28 cm	1/8" and 1/4" brass and stainless steel compression
475 cc		649 - 1100 cc oxygen 10.3 - 13.7 g water 13.7 - 45.7 g hydrocarbons		1 - 3.7 SLPM		3.8 cm x 57 cm	
500 cc		683 - 1158 cc oxygen 10.9 - 16.5 g water 14.4 - 48.1 g hydrocarbons		1.2 - 3.9 SLPM		5 cm x 35 cm	
750 cc		1024 - 1737 cc oxygen 16.3 - 24.8 g water 21.6 - 72.1 g hydrocarbons		1.9 - 5.8 SLPM		5 cm x 50 cm	



PolyGas II							
Volume	Function	Capacity (nominal-max)	Outlet concentration at nominal flow rate	Flow rate (nominal-max)	Max pressure	Dimensions	Fittings
130 cc	Removes water, CO ₂ , CO, halogenated compounds, siloxanes, hydrocarbons heavier than butane, sulfur-containing molecules, ammonia and other gases	6.2 - 9.45 g water 5.4 - 17.86 g hydrocarbons	Moisture < 20 ppb Organics < 5 ppb	1 - 5 SLPM	68.9 bar / 1000 psi 13.8 bar / 200 psi	3.2 cm x 28 cm	1/8" and 1/4" brass and stainless steel compression
475 cc		22.7 - 34.5 g water 19.6 - 65.3 g hydrocarbons		3.7 - 18 SLPM		3.8 cm x 57 cm	
500 cc		23.9 - 36.3 g water 20.6 - 68.7 g hydrocarbons		3.8 - 19 SLPM		5 cm x 35 cm	
750 cc		35.9 - 54.5 g water 30.9 - 103 g hydrocarbons		5.8 - 29 SLPM		5 cm x 50 cm	

- 1) Oxygen capacity is a function of flow rate - the nominal oxygen capacity is determined using the nominal flow rate. The maximum oxygen capacity is determined using 30% of the nominal flow rate.
- 2) The nominal water capacity is determined for an inlet impurity level of 200 ppm H₂O. The maximum water capacity is determined for an inlet impurity level of 10000 ppm H₂O.
- 3) The nominal hydrocarbon capacity is determined for an inlet impurity level of 500 ppm pentane. The maximum hydrocarbon capacity is determined for an inlet impurity level of 2300 ppm pentane.
- 4) Nominal flow rate is the recommended flow rate for an estimated gas purifier life of 1 year. This assumes the following inlet impurities: 1 ppm O₂, 1 ppm H₂O, and 1 ppm HC (C5 and heavier).
- 5) The maximum recommended flow rate is recommended for intermittent use only.

For more information about this product visit www.trajanscimed.com or contact techsupport@trajanscimed.com

Accessories | ZPure™ PolyGas

Part number	Part description and detail
ZPure PolyGas I	
Brass compression fittings	
Standard - 130 cc	
202285-B	ZPure PolyGas I purifier, 1/8" brass compression fittings
202286-B	ZPure PolyGas I purifier, 1/4" brass compression fittings
LS - 475 cc	
202285L-B	ZPure LS PolyGas I purifier, 1/8" brass compression fittings
202286L-B	ZPure LS PolyGas I purifier, 1/4" brass compression fittings
DS - 500 cc	
202285D-B	ZPure DS PolyGas I purifier, 1/8" brass compression fittings
202286D-B	ZPure DS PolyGas I purifier, 1/4" brass compression fittings
XLS - 750 cc	
202285XL-B	ZPure XLS PolyGas I purifier, 1/8" brass compression fittings
202286XL-B	ZPure XLS PolyGas I purifier, 1/4" brass compression fittings
Stainless steel compression fittings	
Standard - 130 cc	
202285-SS	ZPure PolyGas I purifier, 1/8" stainless steel compression fittings
202286-SS	ZPure PolyGas I purifier, 1/4" stainless steel compression fittings
LS - 475 cc	
202285L-SS	ZPure LS PolyGas I purifier, 1/8" stainless steel compression fittings
202286L-SS	ZPure LS PolyGas I purifier, 1/4" stainless steel compression fittings
DS - 500 cc	
202285D-SS	ZPure DS PolyGas I purifier, 1/8" stainless steel compression fittings
202286D-SS	ZPure DS PolyGas I purifier, 1/4" stainless steel compression fittings
XLS - 750 cc	
202285XL-SS	ZPure XLS PolyGas I purifier, 1/8" stainless steel compression fittings
202286XL-SS	ZPure XLS PolyGas I purifier, 1/4" stainless steel compression fittings
ZPure PolyGas II	
Brass compression fittings	
Standard - 130 cc	
202287-B	ZPure PolyGas II purifier, 1/8" brass compression fittings
202288-B	ZPure PolyGas II purifier, 1/4" brass compression fittings
LS - 475 cc	
202287L-B	ZPure LS PolyGas II purifier, 1/8" brass compression fittings
202288L-B	ZPure LS PolyGas II purifier, 1/4" brass compression fittings
DS - 500 cc	
202287D-B	ZPure DS PolyGas II purifier, 1/8" brass compression fittings
202288D-B	ZPure DS PolyGas II purifier, 1/4" brass compression fittings
XLS - 750 cc	
202287XL-B	ZPure XLS PolyGas II purifier, 1/8" brass compression fittings
202288XL-B	ZPure XLS PolyGas II purifier, 1/4" brass compression fittings

Part number	Part description and detail
ZPure PolyGas II continued	
Stainless steel compression fittings	
Standard - 130 cc	
202287-SS	ZPure PolyGas II purifier, 1/8" stainless steel compression fittings
202288-SS	ZPure PolyGas II purifier, 1/4" stainless steel compression fittings
LS - 475 cc	
202287L-SS	ZPure LS PolyGas II purifier, 1/8" stainless steel compression fittings
202288L-SS	ZPure LS PolyGas II purifier, 1/4" stainless steel compression fittings
DS - 500 cc	
202287D-SS	ZPure DS PolyGas II purifier, 1/8" stainless steel compression fittings
202288D-SS	ZPure DS PolyGas II purifier, 1/4" stainless steel compression fittings
XLS - 750 cc	
202287XL-SS	ZPure XLS PolyGas II purifier, 1/8" stainless steel compression fittings
202288XL-SS	ZPure XLS PolyGas II purifier, 1/4" stainless steel compression fittings
Mounting kits	
205705	Standard filter mounting kit (with hardware). For use with 88 cc and 116 cc SPure, 130 cc ZPure and 46 cc ZPure Glass filters.
205706	Wide filter mounting kit (with hardware). For use with 240 cc and 400 cc SPure, and 500 cc and 750 cc Zpure.
205707	ZP 475 Cylinder mounting kit (with hardware). For use with 475 cc ZPure only.

The PolyGas I purifier removes oxygen, moisture, and hydrocarbons.
The PolyGas II purifier removes moisture and hydrocarbons.

For more information about this product visit www.trajanscimed.com or
contact techsupport@trajanscimed.com

Accessories | ZPure™ Glass PolyGas

Pure gas is a critical requirement in gas chromatography, spectroscopy, optics, lithography, and numerous other applications in manufacturing and analytical laboratories. The ZPure™ PolyGas purifiers remove a wide range of contaminants to trace levels. It can be used as a stand alone filter or to provide end-point detection.

Features and benefits

- High-efficiency in-line traps with outstanding capacity.
- High quality activated adsorbents for long purifier life and efficient contaminant removal.
- Filter lifetime is dependent on quality of incoming gas, and the flow rate.
- Highly sensitive indicators.
- Double safety seal and individually leak-tested.



Recommended applications

It can be used to purify inert gases, He, Ar, N₂, and H₂, making it ideal for use with GC and GC/MS carrier gas lines. It is also recommended for any application requiring ultra-pure gas free from oxygen, water and hydrocarbons (heavier than butane).

Product specifications

Glass PolyGas I							
Function	Capacity	Indicator color change	Outlet concentration at nominal flow rate	Flow rate (nominal-max)	Max pressure	Dimensions	Fittings
Removes oxygen, water, CO ₂ , CO, halogenated compounds, siloxanes, hydrocarbons heavier than butane, sulfur-containing molecules, ammonia and other gases	80 cc oxygen 1.4 g water 1 g hydrocarbons	Oxygen: From green to gray Moisture: From blue to pale brown Hydrocarbon: No indicator	Oxygen < 5 ppb Moisture < 20 ppb Organics < 5 ppb	200 mL/min - 400 mL/min	11 bar / 160 psi	3.8 cm x 26.3 cm	1/8" and 1/4" brass and stainless steel compression

Glass PolyGas II							
Function	Capacity	Indicator color change	Outlet concentration at nominal flow rate	Flow rate (nominal-max)	Max pressure	Dimensions	Fittings
Removes water, CO ₂ , CO, halogenated compounds, siloxanes, hydrocarbons heavier than butane, sulfur-containing molecules, ammonia and other gases	1.9 g water 1.8 g hydrocarbons	Moisture: From blue to pale brown Hydrocarbon: No indicator	Moisture < 20 ppb Organics < 5 ppb	200 mL/min - 400 mL/min	11 bar / 160 psi	3.8 cm x 26.3 cm	1/8" and 1/4" brass and stainless steel compression

For more information about this product visit www.trajanscimed.com or contact techsupport@trajanscimed.com

Accessories | ZPure™ Glass PolyGas

Part number	Part description and detail
ZPure Glass PolyGas I	
Brass compression fittings	
202314-B	ZPure Glass PolyGas I purifier, 1/8" brass compression fittings
202315-B	ZPure Glass PolyGas I purifier, 1/4" brass compression fittings
Stainless steel compression fittings	
202314-SS	ZPure Glass PolyGas I purifier, 1/8" stainless steel compression fittings
202315-SS	ZPure Glass PolyGas I purifier, 1/4" stainless steel compression fittings
ZPure Glass PolyGas II	
Brass compression fittings	
202318-B	ZPure Glass PolyGas II purifier, 1/8", brass compression fittings
202319-B	ZPure Glass PolyGas II purifier, 1/4", brass compression fittings
Stainless steel compression fittings	
202318-SS	ZPure Glass PolyGas II purifier, 1/8", stainless steel compression fittings
202319-SS	ZPure Glass PolyGas II purifier, 1/4", stainless steel compression fittings
Mounting kits	
205705	Standard filter mounting kit (with hardware). For use with 88 cc and 116 cc SPure, 130 cc ZPure and 46 cc ZPure Glass filters.

*The PolyGas I purifier removes oxygen, moisture, and hydrocarbons.
The PolyGas II purifier removes moisture and hydrocarbons.*

For more information about this product visit www.trajanscimed.com or contact techsupport@trajanscimed.com

Accessories | ZPure™ O₂/H₂O

Pure gas is a critical requirement in gas chromatography, spectroscopy, optics, lithography, and numerous other applications in manufacturing and analytical laboratories. The ZPure™ line of filters remove a wide range of contaminants to trace levels.

Features and benefits

- High-efficiency in-line traps with outstanding capacity.
- High quality activated adsorbents for long purifier life and efficient contaminant removal.
- Various size and fitting configurations to fit existing installations.
- Filter lifetime is dependent on quality of incoming gas, and the flow rate.
- Individually leak-tested.

Recommended applications

It can be used to purify inert gases, He, Ar, N₂, and H₂, making it ideal for use with GC and GC/MS carrier gas lines. It is also recommended for any application requiring ultra-pure gas free from oxygen and moisture.

Product specifications

ZPure™ O ₂ /H ₂ O							
Volume	Function	Capacity (nominal-max)	Outlet concentration at nominal flow rate	Flow rate (nominal-max)	Max pressure	Dimensions	Fittings
130 cc	Removes oxygen and water from inert gases	275 - 463 cc oxygen 4.3 - 6.6 g water	Oxygen < 5 ppb Moisture < 20 ppb	430 cc/min - 1.4 SLPM	68.9 bar / 1000 psi 13.8 bar / 200 psi	3.2 cm x 28 cm	1/8" and 1/4" brass and stainless steel compression
475 cc		1020 - 1691 cc oxygen 15.9 - 24.1 g water		1.3 - 4.9 SLPM		3.8 cm x 57 cm	
500 cc		1060 - 1780 cc oxygen 16.7 - 25.3 g water		1.6 - 5.2 SLPM		5 cm x 35 cm	
750 cc		1500 - 2671 cc oxygen 25.0 - 38.0 g water		2.5 - 7.7 SLPM		5 cm x 50 cm	

1) Oxygen capacity is a function of flow rate - the nominal oxygen capacity is determined using the nominal flow rate. The maximum oxygen capacity is determined using 30% of the nominal flow rate.

2) The nominal water capacity is determined for an inlet impurity level of 200 ppm H₂O. The maximum water capacity is determined for an inlet impurity level of 10000 ppm H₂O.

3) The nominal hydrocarbon capacity is determined for an inlet impurity level of 500 ppm pentane. The maximum hydrocarbon capacity is determined for an inlet impurity level of 2300 ppm pentane.

4) Nominal flow rate is the recommended flow rate for an estimated gas purifier life of 1 year. This assumes the following inlet impurities: 1 ppm O₂, 1 ppm H₂O, and 1 ppm HC (C5 and heavier). The maximum recommended flow rate is recommended for intermittent use only.



For more information about this product visit www.trajanscimed.com or contact techsupport@trajanscimed.com

Accessories | ZPure™ O₂/H₂O

Part number	Part description and detail
Brass compression fittings	
Standard - 130 cc	
202295-B	ZPure O ₂ / H ₂ O filter, 1/8" brass compression fittings
202296-B	ZPure O ₂ / H ₂ O filter, 1/4" brass compression fittings
LS - 475 cc	
202295L-B	ZPure LS O ₂ / H ₂ O filter, 1/8" brass compression fittings
202296L-B	ZPure LS O ₂ / H ₂ O filter, 1/4" brass compression fittings
DS - 500 cc	
202295D-B	ZPure DS O ₂ / H ₂ O filter, 1/8" brass compression fittings
202296D-B	ZPure DS O ₂ / H ₂ O filter, 1/4" brass compression fittings
XLS - 750 cc	
202295XL-B	ZPure XL O ₂ / H ₂ O filter, 1/8" brass compression fittings
202296XL-B	ZPure XL O ₂ / H ₂ O filter, 1/4" brass compression fittings
Stainless steel compression fittings	
Standard - 130 cc	
202295-SS	ZPure O ₂ / H ₂ O filter, 1/8" stainless steel compression fittings
202296-SS	ZPure O ₂ / H ₂ O filter, 1/4" stainless steel compression fittings
LS - 475 cc	
202295L-SS	ZPure LS O ₂ / H ₂ O filter, 1/8" stainless steel compression fittings
202296L-SS	ZPure LS O ₂ / H ₂ O filter, 1/4" stainless steel compression fittings
DS - 500 cc	
202295D-SS	ZPure DS O ₂ / H ₂ O filter, 1/8" stainless steel compression fittings
202296D-SS	ZPure DS O ₂ / H ₂ O filter, 1/4" stainless steel compression fittings
XLS - 750 cc	
202295XL-SS	ZPure XL O ₂ / H ₂ O filter, 1/8" stainless steel compression fittings
202296XL-SS	ZPure XL O ₂ / H ₂ O filter, 1/4" stainless steel compression fittings
Mounting kits	
205705	Standard filter mounting kit (with hardware). For use with 88 cc and 116 cc SPure, 130 cc ZPure and 46 cc ZPure Glass filters.
205706	Wide filter mounting kit (with hardware). For use with 240 cc and 400 cc SPure, and 500 cc and 750 cc Zpure.
205707	ZP 475 cylinder mounting kit (with hardware). For use with 475 cc ZPure only.

For more information about this product visit www.trajanscimed.com or contact techsupport@trajanscimed.com

Accessories | ZPure™ Glass H₂O HSMI

Pure gas is a critical requirement in gas chromatography, spectroscopy, optics, lithography, and numerous other applications in manufacturing and analytical laboratories. The ZPure™ line of filters remove a wide range of contaminants to trace levels. It can be used as a stand alone filter or to provide end-point detection.

Features and benefits

- High-efficiency in-line traps with outstanding capacity.
- High quality activated adsorbents for long purifier life and efficient contaminant removal.
- Filter lifetime is dependent on quality of incoming gas, and the flow rate.
- Highly sensitive indicators.
- Double safety seal and individually leak-tested.

Recommended applications

It can be used to purify inert gases, He, Ar, N₂, and H₂ for any application requiring ultra-pure gas free from water down to 1 ppm.



Product specifications

ZPure™ Glass H ₂ O HSMI (high sensitivity moisture indicator)							
Function	Capacity	Indicator color change	Outlet concentration at nominal flow rate	Flow rate (nominal-max)	Max pressure	Dimensions	Fittings
High-efficiency moisture removal	6 g water	Moisture: From blue to pale brown	Moisture < 1 ppm	200 mL/min - 2 SLPM	11 bar / 160 psi	3.8 cm x 26.3 cm	1/8" and 1/4" brass and stainless steel compression

For more information about this product visit www.trajanscimed.com or contact techsupport@trajanscimed.com

Accessories | ZPure™ Glass H₂O HSMI

Part number	Part description and detail
Brass compression fittings	
202283-B	ZPure Glass H ₂ O HSMI filter, 1/8" brass fittings
202284-B	ZPure Glass H ₂ O HSMI filter, 1/4" brass fittings
Stainless steel compression fittings	
202283-SS	ZPure Glass H ₂ O HSMI filter, 1/8" stainless steel fittings
202284-SS	ZPure Glass H ₂ O HSMI filter, 1/4" stainless steel fittings
Mounting kits	
205705	Standard filter mounting kit (with hardware). For use with 88 cc and 116 cc SPure, 130 cc ZPure and 46 cc ZPure Glass filters.

For more information about this product visit www.trajanscimed.com or contact techsupport@trajanscimed.com

Accessories | ZPure™ M

Pure gas is a critical requirement in gas chromatography, spectroscopy, optics, lithography, and numerous other applications in manufacturing and analytical laboratories. The ZPure™ M filters remove a wide range of contaminants to trace levels. The ZPure M filters are 3800 cc canisters that have the benefits of higher flow rates, larger capacities, and are refillable in most versions.

Features and benefits

- High-efficiency in-line traps with outstanding capacity.
- High quality activated adsorbents for long purifier life and efficient contaminant removal.
- Filter lifetime is dependent on quality of incoming gas, and the flow rate.
- Made from 316 stainless steel.
- 1/4" stainless steel compression or 1/2" VCR fittings.
- Individually leak-tested.

Recommended applications

It can be used to purify inert gases, He, Ar, N₂, and H₂, in larger capacities. It is recommended for any application requiring ultra-pure gas free from contaminants, and has worked well in semi-conductor applications.



Product specifications

	Volume	Function	Capacity (nominal-max)	Outlet concentration at nominal flow rate	Flow rate (nominal-max)	Max pressure	Dimensions
HC	3800 cc	Removes hydrocarbons	327 - 1,060 g*	< 5 ppb	30 - 200 SLPM	150 psi for air, N ₂ or inert gases 80 psi for H ₂ or O ₂	10 cm x 64 cm
H ₂ O		Removes water	369 - 640 g**	< 20 ppb	30 - 200 SLPM		
CO ₂		Removes carbon dioxide	300 - 564 cc***	< 5 ppb	< 20 SLPM		
PolyGas II		Removes water and hydrocarbons	180 - 281 g** H ₂ O 159 - 530 g* HC	< 20 ppb H ₂ O < 5 ppb HC	30 - 100 SLPM		
O ₂ / H ₂ O		Removes oxygen and water	8,100 - 13,658 cc O ₂ 129 - 196 g** H ₂ O	< 5 ppb O ₂ < 20 ppb H ₂ O	14 - 40 SLPM		

* Hydrocarbons (C5 and heavier); capacity based on 0.05 % pentane inlet concentration.

** Water capacity based on an inlet moisture concentration of 200 ppm.

*** Capacity based on an inlet CO₂ concentration of 400 ppm.

For more information about this product visit www.trajanscimed.com or
contact techsupport@trajanscimed.com

Accessories | ZPure™ M

Part number	Part description and detail
Vacuum coupling radiation (VCR) fitting	
202230M-V	ZPure M H ₂ O filter, 1/2" vacuum coupling radiation fittings
202287M-V	ZPure M PolyGas II filter, 1/2" vacuum coupling radiation fittings (removes moisture and hydrocarbons)
202295M-V	ZPure M O ₂ / H ₂ O filter, 1/2" vacuum coupling radiation fittings
202232M-V	ZPure M Hydrocarbon filter, 1/2" vacuum coupling radiation fittings
Stainless steel compression fittings	
202233M-SS	ZPure M Hydrocarbon filter, 1/4" stainless steel fittings
202231M-SS	ZPure M H ₂ O filter, 1/4" stainless steel fittings
202296M-SS	ZPure M O ₂ / H ₂ O filter, 1/4" stainless steel fittings
202288M-SS	ZPure M PolyGas II filter, 1/4" stainless steel fittings (removes moisture and hydrocarbons)

For more information about this product visit www.trajanscimed.com or contact techsupport@trajanscimed.com

Accessories | ZPure™ Ultra

Pure gas is a critical requirement in gas chromatography, spectroscopy, optics, lithography, and numerous other applications in manufacturing and analytical laboratories. The ZPure™ Ultra filters are designed for use when extremely pure gas is critical to the application such as in the microelectronics and semiconductors industry.

Features and benefits

- High-quality 316 stainless steel construction.
- Electro polished surface finish.
- Outlet purity to low ppb levels.
- For use at ambient temperatures.
- 0.003 µm outlet particle filter.
- 1/4" metal gasket seal fittings.
- Available in hydrocarbon, and 3A or 5A moisture removing.

Recommended applications

For use when extremely pure gas is critical to the application. Ideal for small scale microelectronics and semiconductor use.

Product specifications

	Function	Max flow rate	Max pressure	Dimensions	Fittings
3A H ₂ O	Removes water from inert gases	20 SLPM	68.9 bar / 1000 psi	3.5" x 1.25"	1/4" metal gasket seals
5A H ₂ O	Removes water from inert gases				
HC	Removes hydrocarbons from inert gases				



For more information about this product visit www.trajanscimed.com or contact techsupport@trajanscimed.com

Accessories | ZPure™ Ultra

Part number	Part description and detail
202371-V	ZPure Ultra 3A moisture filter, 1/4" metal gasket seal fittings
202373-V	ZPure Ultra 5A moisture filter, 1/4" metal gasket seal fittings
202375-V	ZPure Ultra Hydrocarbon filter, 1/4" metal gasket seal fittings

For more information about this product visit www.trajanscimed.com or
contact techsupport@trajanscimed.com

Accessories | ZPure™ H₂O

Pure gas is a critical requirement in gas chromatography, spectroscopy, optics, lithography, and numerous other applications in manufacturing and analytical laboratories. The ZPure™ line of filters remove a wide range of contaminants to trace levels.

Features and benefits

- High-efficiency in-line traps with outstanding capacity.
- High quality activated adsorbents for long purifier life and efficient contaminant removal.
- Various size and fitting configurations to fit existing installations.
- Filter lifetime is dependent on quality of incoming gas, and the flow rate.
- Individually leak tested.

Recommended applications

It can be used to remove water from inert gases, He, Ar, N₂, H₂, methane and clean dry air (CDA) to low ppb levels. It is recommended for any application requiring ultra-dry gas.

Product specifications

ZPure™ H ₂ O							
Volume	Function	Capacity (nominal-max)	Outlet concentration at nominal flow rate	Flow rate (nominal-max)	Max pressure	Dimensions	Fittings
130 cc	Removes water	12 - 22 g water	Moisture < 20 ppb	1 - 10 SLPM	68.9 bar / 1000 psi	3.2 cm x 28 cm	1/8" and 1/4" brass and stainless steel compression
475 cc		45 - 79 g water		3.7 - 36 SLPM		3.8 cm x 57 cm	
500 cc		48 - 83 g water		3.8 - 38 SLPM	13.8 bar / 200 psi	5 cm x 35 cm	
750 cc		72 - 124 g water		5.8 - 57 SLPM		5 cm x 50 cm	

1) The nominal water capacity is determined for an inlet impurity level of 200 ppm H₂O. The maximum water capacity is determined for an inlet impurity level of 10000 ppm H₂O.

2) Nominal flow rate is the recommended flow rate for an estimated gas purifier life of 1 year. This assumes the following inlet impurities: 1 ppm H₂O. The maximum recommended flow rate is recommended for intermittent use only.

For more information about this product visit www.trajanscimed.com or contact techsupport@trajanscimed.com



Accessories | ZPure™ H₂O

Part number	Part description and detail
Brass compression fittings	
Standard - 130 cc	
202230-B	ZPure H ₂ O filter, 1/8" brass fittings
202231-B	ZPure H ₂ O filter, 1/4" brass fittings
203011-B	ZPure H ₂ O filter, 1/4" brass fittings, with Mol Sieve 3A
LS - 475 cc	
202230L-B	ZPure LS H ₂ O filter, 1/8" brass fittings
202231L-B	ZPure LS H ₂ O filter, 1/4" brass fittings
203011L-B	ZPure LS H ₂ O filter, 1/4" brass fittings, with Mol Sieve 3A
DS - 500 cc	
202230D-B	ZPure DS H ₂ O filter, 1/8" brass fittings
202231D-B	ZPure DS H ₂ O filter, 1/4" brass fittings
XLS - 750 cc	
202230XL-B	ZPure XLS H ₂ O filter, 1/8" brass fittings
202231XL-B	ZPure XLS H ₂ O filter, 1/4" brass fittings
Stainless steel compression fittings	
Standard - 130 cc	
202230-SS	ZPure H ₂ O filter, 1/8" stainless steel fittings
202231-SS	ZPure H ₂ O filter, 1/4" stainless steel fittings
LS - 475 cc	
202230L-SS	ZPure LS H ₂ O filter, 1/8" stainless steel fittings
202231L-SS	ZPure LS H ₂ O filter, 1/4" stainless steel fittings
203011L-SS	ZPure LS H ₂ O filter, 1/4" stainless steel fittings, with Mol Sieve 3A
DS - 500 cc	
202230D-SS	ZPure DS H ₂ O filter, 1/8" stainless steel fittings
202231D-SS	ZPure DS H ₂ O filter, 1/4" stainless steel fittings
XLS - 750 cc	
202230XL-SS	ZPure XLS H ₂ O filter, 1/8" stainless steel fittings
202231XL-SS	ZPure XLS H ₂ O filter, 1/4" stainless steel fittings
Mounting kits	
205705	Standard filter mounting kit (with hardware). For use with 88 cc and 116 cc SPure, 130 cc ZPure and 46 cc ZPure Glass filters.
205706	Wide filter mounting kit (with hardware). For use with 240 cc and 400 cc SPure, and 500 cc and 750 cc Zpure.
205707	ZP 475 Cylinder mounting kit (with hardware). For use with 475 cc ZPure only.

For more information about this product visit www.trajanscimed.com or contact techsupport@trajanscimed.com

Accessories | ZPure™ HC

Pure gas is a critical requirement in gas chromatography, spectroscopy, optics, lithography, and numerous other applications in manufacturing and analytical laboratories. The ZPure™ line of filters remove a wide range of contaminants to trace levels.

Features and benefits

- High-efficiency in-line traps with outstanding capacity.
- High quality activated adsorbents for long purifier life and efficient contaminant removal.
- Various size and fitting configurations to fit existing installations.
- Filter lifetime is dependent on quality of incoming gas, and the flow rate.
- Individually leak-tested.

Recommended applications

It can be used to remove hydrocarbons heavier than butane from inert gases, He, Ar, N₂, H₂, and clean dry air (CDA) to low ppb levels. It is recommended for most applications requiring hydrocarbon-free gas.

Product specifications

ZPure™ HC							
Volume	Function	Capacity (nominal-max)	Outlet concentration at nominal flow rate	Flow rate (nominal-max)	Max pressure	Dimensions	Fittings
130 cc	Removes hydrocarbons (C5 and heavier)	11 - 36 g	< 5 ppb	1 - 10 SLPM	68.9 bar / 1000 psi	3.2 cm x 28 cm	1/8" and 1/4" brass and stainless steel compression
475 cc		40 - 131 g		3.7 - 36 SLPM		3.8 cm x 57 cm	
500 cc		42 - 137 g		3.8 - 38 SLPM	13.8 bar / 200 psi	5 cm x 35 cm	
750 cc		63 - 206 g		5.8 - 57 SLPM		5 cm x 50 cm	

1) The nominal hydrocarbon capacity is determined for an inlet impurity level of 500 ppm pentane.

2) The maximum hydrocarbon capacity is determined for an inlet impurity level of 2300 ppm pentane.

3) The nominal flow rate is the recommended flow rate for an estimated gas purifier life of 1 year. This assumes the following inlet impurities: 1 ppm hydrocarbons (C5 and heavier)

4) The maximum recommended flow rate is recommended for intermittent use only.

For more information about this product visit www.trajanscimed.com or contact techsupport@trajanscimed.com

Accessories | ZPure™ HC

Part number	Part description and detail
Brass compression fittings	
Standard - 130 cc	
202232-B	ZPure Hydrocarbon filter, 1/8" brass fittings
202233-B	ZPure Hydrocarbon filter, 1/4" brass fittings
LS - 475 cc	
202232L-B	ZPure LS Hydrocarbon filter, 1/8" brass fittings
202233L-B	ZPure LS Hydrocarbon filter, 1/4" brass fittings
DS - 500 cc	
202232D-B	ZPure DS Hydrocarbon filter, 1/8" brass fittings
202233D-B	ZPure DS Hydrocarbon filter, 1/4" brass fittings
XLS - 750 cc	
202232XL-B	ZPure XLS Hydrocarbon filter, 1/8" brass fittings
202233XL-B	ZPure XLS Hydrocarbon filter, 1/4" brass fittings
Stainless steel compression fittings	
Standard - 130 cc	
202232-SS	ZPure Hydrocarbon filter, 1/8" stainless steel fittings
202233-SS	ZPure Hydrocarbon filter, 1/4" stainless steel fittings
LS - 475 cc	
202232L-SS	ZPure LS Hydrocarbon filter, 1/8" stainless steel fittings
202233L-SS	ZPure LS Hydrocarbon filter, 1/4" stainless steel fittings
DS - 500 cc	
202232D-SS	ZPure DS Hydrocarbon filter, 1/8" stainless steel fittings
202233D-SS	ZPure DS Hydrocarbon filter, 1/4" stainless steel fittings
XLS - 750 cc	
202232XL-SS	ZPure XLS Hydrocarbon filter, 1/8" stainless steel fittings
202233XL-SS	ZPure XLS Hydrocarbon filter, 1/4" stainless steel fittings
Mounting kits	
205705	Standard filter mounting kit (with hardware). For use with 88 cc and 116 cc SPure, 130 cc ZPure and 46 cc ZPure Glass filters.
205706	Wide filter mounting kit (with hardware). For use with 240 cc and 400 cc SPure, and 500 cc and 750 cc Zpure.
205707	ZP 475 Cylinder mounting kit (with hardware). For use with 475 cc ZPure only.

For more information about this product visit www.trajanscimed.com or contact techsupport@trajanscimed.com

Accessories | SPure™ H₂O

Pure gas is a critical requirement in gas chromatography, spectroscopy, optics, lithography, and numerous other applications in manufacturing and analytical laboratories. The SPure™ H₂O filters remove moisture, oil and dust from air and inert gases.

Features and benefits

- High-strength polycarbonate and acrylic bodies with aluminum end caps.
- Available with standard brass and stainless steel compression fittings.
- Not recommended for house compressed air lines or for GC carrier gases.
- Not for use with hazardous, flammable, or reactive gases.

Recommended applications

It can be used to remove moisture, oil and dust from air and inert gases. It is suitable for general purpose, non-critical laboratory use.



Product specifications

SPure™ H ₂ O							
Volume	Function	Capacity (nominal-max)	Flow rate (nominal-max)	Max pressure	Dimensions	Fittings	Body material
88 cc	Removes water, oil and dust	6.3 - 11.0 g water	0.680 - 6.8 SLPM	6.89 bar / 100 psi	3.8 cm x 26.3 cm	1/8" and 1/4" brass and stainless steel compression	Polycarbonate
116 cc		8.3 - 14.4 g water	0.900 - 9.0 SLPM		3.8 cm x 31.8 cm		Polycarbonate
240 cc		17.2 - 29.9 g water	1.85 - 18.5 SLPM		5.6 cm x 28.5 cm		Acrylic
400 cc		28.6 - 49.8 g water	3.0 - 30.0 SLPM		5.6 cm x 41.9 cm		Acrylic

1) The nominal water capacity is determined for an inlet impurity level of 200 ppm H₂O. The maximum water capacity is determined for an inlet impurity level of 10000 ppm H₂O.

2) Nominal flow rate is the recommended flow rate for an estimated gas purifier life of 1 year. This assumes the following inlet impurities: 1 ppm H₂O. The maximum recommended flow rate is recommended for intermittent use only.

For more information about this product visit www.trajanscimed.com or contact techsupport@trajanscimed.com

Accessories | SPure™ H₂O

Part number	Part description and detail
Brass compression fittings	
Standard - 88 cc	
202238-B	SPure H ₂ O filter, 1/8" brass fittings
202239-B	SPure H ₂ O filter, 1/4" brass fittings
LS - 116 cc	
202238L-B	SPure LS H ₂ O filter, 1/8" brass fittings
202239L-B	SPure LS H ₂ O filter, 1/4" brass fittings
DS - 240 cc	
202238D-B	SPure DS H ₂ O filter, 1/8" brass fittings
202239D-B	SPure DS H ₂ O filter, 1/4" brass fittings
XLS - 400 cc	
202238XL-B	SPure XLS H ₂ O filter, 1/8" brass fittings
202239XL-B	SPure XLS H ₂ O filter, 1/4" brass fittings
Stainless steel compression fittings	
Standard - 88 cc	
202238-SS	SPure H ₂ O filter, 1/8" stainless steel fittings
202239-SS	SPure H ₂ O filter, 1/4" stainless steel fittings
LS - 116 cc	
202238L-SS	SPure LS H ₂ O filter, 1/8" stainless steel fittings
202239L-SS	SPure LS H ₂ O filter, 1/4" stainless steel fittings
DS - 240 cc	
202238D-SS	SPure DS H ₂ O filter, 1/8" stainless steel fittings
202239D-SS	SPure DS H ₂ O filter, 1/4" stainless steel fittings
XLS - 400 cc	
202238XL-SS	SPure XLS H ₂ O filter, 1/8" stainless steel fittings
202239XL-SS	SPure XLS H ₂ O filter, 1/4" stainless steel fittings
Mounting kits	
205705	Standard filter mounting kit (with hardware). For use with 88 cc and 116 cc SPure, 130 cc ZPure and 46 cc ZPure Glass filters.
205706	Wide filter mounting kit (with hardware). For use with 240 cc and 400 cc SPure, and 500 cc and 750 cc Zpure.
Refill kits	
202243	Refill kit - Processed activated carbon (500 cc)
202245	Refill kit - Molecular Sieve (500 cc)
202247	Refill kit - CoFree (500 cc)
202298	Refill kit - CoFree purifier 350 cc Molecular Sieve -120 cc CoFree

For more information about this product visit www.trajanscimed.com or contact techsupport@trajanscimed.com

Accessories | Infinity H₂ purifier

Pure gas is a critical requirement in gas chromatography, spectroscopy, optics, lithography, and numerous other applications in manufacturing and analytical laboratories. The Infinity H₂ Purifier is a self regenerating purifier that removes oxygen from hydrogen at ambient temperature. The reaction consumes the oxygen and creates an excess of water vapor. When paired with an additional moisture filter it is the perfect solution for hydrogen generators. This catalytic purifier has the potential to last forever, however the media can be easily contaminated by oil, organic solvents, heavy metals, sulfur compounds etc.

Features and benefits

- High-quality 316 stainless steel construction.
- For use at ambient temperatures.
- For use with hydrogen only.

Recommended applications

For use with hydrogen generators. Infinitely regenerates when paired with an additional moisture filter.

Product specifications

Contact us to speak with an expert regarding your application.

For more information about this product visit www.trajanscimed.com or contact techsupport@trajanscimed.com



Accessories | Infinity H₂ purifier

Part number	Part description and detail
202381-SS	Infinity H ₂ purifier - 1/4" stainless steel compression fittings

For more information about this product visit www.trajanscimed.com or contact techsupport@trajanscimed.com