

LABCLEAR™

FILTERS

GAS FILTRATION SINCE 1976

OXICLEAR™

PURIFIERS

**OXYGEN
TRAPS**

**MOISTURE
TRAPS**

**HYDROCARBON
TRAPS**

**SPECIALTY GAS
FILTERS**



WWW.LABCLEAR.COM

LABCLEAR™
FILTERS

OXICLEAR™
PURIFIERS



LABCLEAR, a division of Diamond Tool & Die, Inc., is located in Oakland California. Our parent company currently has 35 EMPLOYEE OWNERS in our 25,000 square foot facility.

Our LabClear filters and OxiClear purifiers are trusted names in gas filtration and purification applications. We have been providing specialty-gas users with superb products to filter out moisture, hydrocarbons and oxygen. These filters and purifiers produce ultra-pure gas for chromatography, crystal and chip manufacturing, robotics and carbon nanotube manufacturing, where the gas must be clean and moisture free. With a wide range of sizes and configurations available, let LabClear and OxiClear provide you with the filters and purifiers to meet your requirements.

Last year we introduced our Easy-Connect gas filter which allows you to change filters and leave the connections intact.

LABCLEAR AND OXICLEAR ARE TRADEMARKS OF DIAMOND TOOL & DIE, INC
AN EMPLOYEE OWNED COMPANY
PROVIDING GAS PURIFICATION PRODUCTS SINCE 1976

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LABCLEAR™ GAS FILTERS

LabClear Gas Filters (dryer/desiccant) are designed to remove water, oil and other heavy hydrocarbons from inert carrier gases such as nitrogen, helium or argon. LabClear Gas filters are offered in two main varieties: Disposable and Refillable.

Our Standard Filter contains a mixture of Drierite® and a #13X molecular sieve. The Drierite will change color from blue to pink with the absorption of moisture. All filters are also available with these special order media: **3A, 4A, 5A, Silica Gel**. We also offer a hydrocarbon trap filled with activated carbon.

Any of our OxiClear™ purifier canisters (low-carbon steel or Stainless Steel) can be adapted with the various filter medias. Contact us for details.



REFILLABLE LABCLEAR FILTERS

Our **REFILLABLE FILTER** is offered in both “inline” or with a base plate, and either 1/8” or 1/4” male tube compression fittings. The body of the filter is cast acrylic so the contents are readily visible. It is easily refilled by the end-user with the refill kit (RK-400 or RK-2800). These filters are tested at 120 psi and 100° F. Flow rate to 5 liters per minute.

The **EASYCONNECT GAS FILTER** is easily changed without any tools needed to install a new or refilled cartridge. Just remove the old unit by loosening the round collar, and snap in the new unit, all within 10 seconds. The spring-loaded valves will isolate both the inlet and outlet lines automatically as soon as the old unit is removed, and keep them isolated until a new unit is installed. The units can be easily refilled using our refill kits (RK-400 or RK-2800).



RK-400 (400 cc) and the **RK-2800** (2800 cc). These premixed kits are an inexpensive and easy-to-use refill for all of our LabClear refillable filters.

DISPOSABLE LABCLEAR FILTERS

The **DISPOSABLE FILTERS DGF-250** (1/4” FITTING) and the **DGF-125** (1/8” FITTING) are “inline” disposable filters. Both these models are constructed of clear PVC for easy viewing of the media. Each unit is tested at 125 psi, and can withstand temperatures up to 100°C. These Disposable filters can be special ordered with any of our available media. The fittings are nickel plated brass male tube-compression fittings.



SPRING CLIPS



SPRING CLIP Spring clips are available for convenience in holding “inline” OxiClear and LabClear units. This useful item mounts easily on your bench or cabinet, and holds your “inline” filter or purifier firmly in place. It may also be used for conveniently locating spare units.

LABCLEAR™ GAS FILTERS, cont.

	FITTING SIZE	VOLUME ML	PSI	FLOW RATE LPM	SIZE (APPROX) INCHES	BODY
STANDARD REFILLABLE GAS FILTERS						
RGF-250-200	1/4" **	200	120	5	7 1/2 X 2	CAST ACRYLIC
RGF-125-200	1/8" **	200	120	5	7 1/2 X 2	CAST ACRYLIC
RGF-250-400	1/4" **	400	120	5	14 X 2	CAST ACRYLIC
RGF-125-400	1/8" **	400	120	5	14 X 2	CAST ACRYLIC

STANDARD REFILLABLE GAS FILTERS WITH BASE PLATE						
RGFB-250-200	1/4" **	200	120	5	7 1/2 X 5	CAST ACRYLIC
RGFB-125-200	1/8" **	200	120	5	7 1/2 X 5	CAST ACRYLIC
RGFB-250-400	1/4" **	400	120	5	14 X 5	CAST ACRYLIC
RGFB-125-400	1/8" **	400	120	5	14 X 5	CAST ACRYLIC

REFILLABLE HYDROCARBON TRAPS						
RGF-CX-250-200	1/4" **	200	120	5	7 1/2 X 2	CAST ACRYLIC
RGF-CX-125-200	1/8" **	200	120	5	7 1/2 X 2	CAST ACRYLIC
RGF-CX-250-400	1/4" **	400	120	5	14 X 2	CAST ACRYLIC
RGF-CX-125-400	1/8" **	400	120	5	14 X 2	CAST ACRYLIC

REFILLABLE HYDROCARBON TRAPS WITH BASE PLATE						
RGFB-CX-250-200	1/4" **	200	120	5	7 1/2 X 5	CAST ACRYLIC
RGFB-CX-125-200	1/8" **	200	120	5	7 1/2 X 5	CAST ACRYLIC
RGFB-CX-250-400	1/4" **	400	120	5	14 X 5	CAST ACRYLIC
RGFB-CX-125-400	1/8" **	400	120	5	14 X 5	CAST ACRYLIC

EASYCONNECT GAS FILTER						
RGFEZ-250-BASE	1/4" **				3 1/2 X 4 1/2	ALUMINUM
RGFEZ-125-BASE	1/8" **				3 1/2 X 4 1/2	ALUMINUM
RGFEZ-200 MEDIA CARTRIDGE		200		5	8 X 2 1/2	CAST ACRYLIC
RGFEZ-400 MEDIA CARTRIDGE		400		5	15 X 2 1/2	CAST ACRYLIC

DISPOSABLE MOISTURE TRAPS						
DGF-250	1/4" **	200	125	5	7 X 2	PVC
DGF-125	1/8" **	200	125	5	7 X 2	PVC

DISPOSABLE HYDROCARBON TRAPS						
DGF-CX-250	1/4" **	200	125	5	7 X 2	PVC
DGF-CX-125	1/8" **	200	125	5	7 X 2	PVC

** Nickle Plated Brass Tube Compression Fittings

STAINLESS STEEL AND LOW CARBON FILTERS

All of our LABCLEAR FILTER media is available in our Stainless Steel and Low Carbon canisters. (There is no visual indication while using the Stainless Steel or Low Carbon Filters) See our Purifier Section (pages 3 and 4) for sizes. We can also install a "viewing window" to view the media color change.

REFILL KITS FOR REFILLABLE MOISTURE AND HYDROCARBON TRAPS

RK-400	400
RK-2800	2800
RK-400-CX	400
RK-2800-CX	2800

SPECIAL ORDER REFILL KITS ARE AVAILABLE FOR ALL MEDIA

SPRING CLIPS

SC-1	FITS ALL FILTERS AND PURIFIERS UP TO 500 R1 SIZE (FOR DGP-R2 AND IOT ORDER SC-2)
SC-2	FITS DGP-R2 PURIFIER AND IOT

OXICLEAR™ GAS PURIFIERS

OxiClear Gas Purifiers are oxygen-absorbing gas purifiers with high efficiency and low resistance to gas flow. OxiClear Gas Purifiers are primarily designed for applications involving gas chromatography, glove boxes, anaerobic experiments and carbon-nanotube manufacturing. They remove oxygen and trace amounts of water and organics from inert carrier gases such as nitrogen, helium, argon, hydrogen and ethylene. OxiClear purifiers are efficient to less than 5 ppb when the incoming concentration is 15ppm or less. All models are fitted with 60 – 100 micron stainless steel frits. We offer them in both Refillable and Disposable models.



REFILLABLE OXICLEAR PURIFIERS *

We offer a wide variety of refillable purifier styles and sizes.

Our **STANDARD OXICLEAR REFILLABLE PURIFIER** is offered in both “inline” or with a Base Plate, and either 1/8” or 1/4” male tube compression fittings. It has the capacity for purifying the contents of 4 – 5 standard 300 cubic foot cylinders. This Purifier is approximately 8” by 2”. (Base Plate model is 9 ½ X 5)

The **LOW CARBON STEEL GAS REFILLABLE PURIFIERS** are available in 5 sizes. They are fitted with NPT fittings, and are black powder coated. They all have a maximum operating pressure of 900 psi.



The **STAINLESS STEEL REFILLABLE PURIFIERS** are available in a variety of sizes. They are fitted with NPT fittings, and have a maximum operating pressure of 1800 psi.

The refilling service for the refillable purifiers is available **only by returning them to our Oakland California facility.*

DISPOSABLE OXICLEAR PURIFIERS

The **DGP-R1** and the **DGP-R2** are “inline” purifiers. Each model is capable of purifying the contents of 4 – 5 standard cylinders of 300 cubic feet each. Both are rated at 125 psi and temperatures up to 100 °C. Either 1/4” or 1/8” nickel plated brass male tube compression fittings are available.



The compact **OXICLEAR INDICATING OXYGEN TRAP (IOT)** has the capacity of 40 cc of pure oxygen; it will remove oxygen from a full 200 cubic foot cylinder of helium with 10ppm oxygen (or several cylinders of high purity helium). Maximum pressure is 100 psi. It has a flow rate of 100 – 150 cc/minute. When the color turns from light green to grey, it is time to change the IOT. Or, if you are using the IOT to monitor a purifier inline before the IOT unit, it is time to change that purifier also. No calculating or guesswork.



Our **LOW CARBON STEEL DISPOSABLE GAS OXICLEAR PURIFIERS** are rated at 900 psi. They are black powder coated with NPT fittings. They have all the specification of the Low Carbon Steel Refillable Gas Purifiers, except they are disposable. This is the solution to those situations when it is not cost effective to ship the units back to us for refilling, and you require a larger unit.



OXICLEAR™ GAS PURIFIERS, cont.

OXICLEAR™ REFILLABLE PURIFIERS

CATALOG #	FITTING	FILTRATION CAPACITY CFT	VOLUME ML	FLOW RATE		O2 REMOVAL		APPROX SIZE	
				NORM	MAX LPM	NORM	MAX LITERS	DIA X LENGTH INCHES	
STAINLESS STEEL REFILLABLE PURIFIERS									
RGP-R1-300	1/4" MALE NPT	3600	300	6	30	00.72	00.26	2 X 9 3/4	
RGP-R1-500	1/4" MALE NPT	6000	500	10	50	01.20	00.42	2 X 14 1/2	
RGP-R1-1000	1/2" MALE NPT	12000	1000	20	100	02.40	00.85	3 1/2 X 10 1/2	
RGP-R1-2250	1/2" MALE NPT	27000	2250	45	225				
RGP-R1-6600	1/2" MALE NPT	79000	6600	132	660	15.80	05.61	4 X 32	
RGP-R1-10000	1/2" MALE NPT	120000	10000	200	1000	24.00	08.50	5 X 31	
RGP-R1-15600	1/2" MALE NPT	187200	15600	300	1500	37.40	13.30	5 X 48	

LOW CARBON STEEL REFILLABLE PURIFIERS

RGP-R1-300B	1/4" MALE NPT	3600	300	6	30	00.72	00.26	2 X 9 3/4	
RGP-R1-500B	1/4" MALE NPT	6000	500	10	50	01.20	00.42	2 X 14 1/2	
RGP-R1-500B QUICK ***		6000	500	10	50	01.20	00.42	2 X 14 1/2	
*** Quick Disconnect Fittings									
RGP-R1-1000B	1/2" MALE NPT	12000	1000	20	100	02.40	00.85	3 1/2 X 10 1/2	
RGP-R1-3000B	1/2" MALE NPT	36000	3000	60	300	07.20	02.55	4 X 20	
RGP-R1-20000B	1/2" MALE NPT	24000	20000	400	2000	48.00	17.00	6 1/2 X 60	

REFILLABLE STANDARD PURIFIER

INLINE

RGP-250-R1	1/4" **	1200		5		00.60	00.22	2 X 8	
RGP-125-R1	1/8" **	1200		5		00.60	00.22	2 X 8	

WITH BASEPLATE

RGPB-250-R1	1/4" **	1200		5		00.60	00.22	7 1/2 X 5	
RGPB-125-R1	1/8" **	1200		5		00.60	00.22	7 1/2 X 5	

** Nickle Plated Brass Tube Compression Fittings

DISPOSABLE PURIFIERS

POLISHED ALUMINUM

DGP-250-R1	1/4" **	1200	120	5		00.30	00.11	2 X 5 1/2	
DGP-125-R1	1/8" **	1200	120	5		00.30	00.11	2 X 5 1/2	

ALUMINUM WITH ANODIZED FINISH

DGP-250-R2	1/4" **	1200	120	5		00.30	00.11	1 1/4 X 10	
DGP-125-R2	1/8" **	1200	120	5		00.30	00.11	1 1/4 X 10	

** Nickle Plated Brass Tube Compression Fittings

LOW CARBON STEEL DISPOSABLE PURIFIERS

DGP-R1-300B	1/4" MALE NPT	3600	300	6	30	00.72	00.26	2 X 9 3/4	
DGP-R1-500B	1/4" MALE NPT	6000	500	10	50	01.20	00.42	2 X 14 1/2	
DGP-R1-1000B	1/2" MALE NPT	12000	1000	20	100	02.40	00.85	3 1/2 X 10 1/2	
DGP-R1-3000B	1/2" MALE NPT	36000	3000	60	300	07.20	02.55	4 X 20	

DISPOSABLE INDICATING OXYGEN TRAP

IOT-250	1/4" **	200		1	5	40 cc		1 3/8 X 10 1/4	
IOT-125	1/8" **	200		1	5	40 cc		1 3/8 X 10 1/4	

** Nickle Plated Brass Tube Compression Fittings