



Recirculating clean air in a printing shop

2 x TG8

- | | |
|---------------------|---------------------|
| Acetone | Halides |
| Acid gases | Halogens |
| Adhesives | Hexane |
| Alcohols | Hospital odours |
| Aldehydes | Human odours |
| Aliphatics | Hydrocarbons |
| Alkanes | Hydrogen sulphide |
| Amines | Injection moulding |
| Ammonia | Ketones |
| Anaesthetics | Mercaptans |
| Animal odours | Methyl Ethyl Ketone |
| Aromatics | Monomers |
| Benzene | Nitrogen compounds |
| Bromine | Oils & greases |
| Carbon Dioxide | Organic vapours |
| Chlorine | Printing processes |
| Chlorofluorocarbons | Resins |
| Diethylamine | Solvents |
| Esters | Styrene |
| Ethers | Sulphur compounds |
| Ethylene | Toluene |
| Fertiliser | Trichloroethylene |
| Film processing | Vapours |
| Food odours | VOCs |
| Formaldehyde | Xylene |
| Glues & paints | ...and many more |

Hundreds of gases are described in the Oztec database, which allows selection of six adsorption media to match your pollutant.

Gas Cleaners for ambient air recirculation

Model TG8

Gas Cleaners capture and filter gases by **adsorption** - also known as **dry scrubbing**. This is achieved through the use of activated granular media. Each granule has millions of pores through which the gas passes, creating an active surface area of an incredible 1000m² per gram.

Six different types of media are available, ranging from a standard activated carbon to chemically impregnated alumina. This flexibility in media choice allows an Ozone Gas Cleaner to be tailored to suit a particular gas - unlike some Cleaners which only use the one media irrespective of the pollutant type. The cartridge contains a massive 16 to 27 kilograms of media, depending on type, and is designed to achieve optimum efficiency.



Wall Mounted with Canopy

TG8, EC8

Electrically charged pre-filters prevent particulates from blocking the granular media and prematurely reducing filter life. The cartridge is fully enclosed within the Cleaner case, protecting employees from any unnecessary exposure to the gas-laden media. The extractor is included in the package.

Model TG8 is used as either a Recirculator or with a Canopy. Ideal for printing presses, injection moulding, glues, or tanks for washing/cleaning/chemicals, etc. The EC8 Canopy is sized to suit the TG8 Cleaner and simply bolts on. Alternatively, it can be remotely mounted and connected by ducting.



Mobile with Canopy

TG8-S, EC8

Cleaners can also be configured as mobile products with a Canopy on top, or as a Mobile Recirculator. Filter access is easy - simply open the door and slide the cartridge out.



Mobile Recirculator

TG8-N

Gas Cleaners

Filtering and Adsorbing gases, vapours and odours

Gas Cleaners for Flexi Arms or Duct

Models GS8, GU8

Model GS8 is either mobile or floor mounted, whilst model GU8 bolts to a wall, column or ceiling. Inlets such as solid ducting, flexible hose or Ozone Flexi Arms connect directly to the Cleaners.

With a 360° swivel mounting plate, flexible self-supporting joints and a unique rotating inlet hood, Ozone Flexi Arms can be positioned by the operator to capture dangerous gases at source, before they enter the breathing zone. They feature a unique all-solid design, unlike the flexible hose joints found on old style arms.

When total protection is necessary, or gas concentrations are high, outlet ducting can be easily attached. The DS200 Sliding Damper, fitted to the Cleaner's outlet, allows the operator to control the extraction rate. Importantly, the extraction drive motor is located out of the filtered air stream for safety.



Wall mounted with Arm inlet and ducted outlet

The unique Ozone Channel Cartridge has a 5-stage gas filtration process. It includes an inertial separator to remove any large particles. A 300 micron screen and electrically charged pre-filter offer further protection for fine particulates. When the gas media has reached its holding capacity, the cartridge simply slides out and is easily filled with fresh Ozone media, available in sealed containers. The Ozone Channel Cartridge is made from a special polymer, for corrosion protection and long life.



Mobile GS8, 2 x AF3

Flexi Arms can be used either with Cleaners which are bolted to the wall, or with Cleaners which are mobile.

One or two Flexi Arms can be connected.



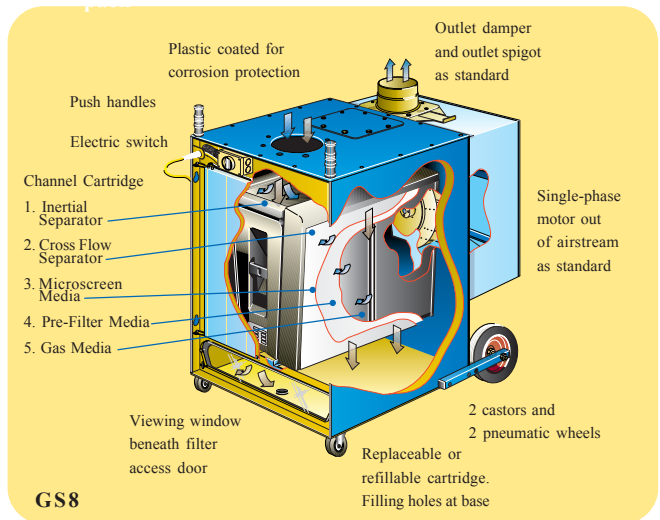
ET2 Enclosure

Ozone Gas Cleaners can also be ducted to multiple Enclosures. This results in a distributed network of extraction stations, which avoids the need for staff having to frequently relocate their work to a fume cabinet.



ET7 Enclosure & hand glove

Two Enclosures are available: the small ET2 and the large ET7. A further version includes Hand Gloves for extra protection. They are ergonomically designed with excellent strength, corrosion resistance and optics.



Central Gas Cleaners

Model GS9

With their stacked filter chambers, Central Gas Cleaners have a massive 32 to 54 kilograms of gas media, depending on type. They are suitable for high flow rate applications or Ducted Systems to multiple inlets. Disposal of used Gas Media is significantly easier than the wastewater and sludge associated with the alternative system of wet scrubbers.

With its small footprint, the Cleaner takes up very little floor space and can even be wall mounted if preferred. Various sizes of inlet Spigot simply bolt on and various extractors are also available. Outlet Dampers and outlet Spigots are also fitted as standard. Motors are out of the airstream for safety.



GS9, SS301

Mini Gas Cleaners

Model GS2

Model GS2 is a smaller, portable Gas Cleaner ideal for laboratories and workshops where pollutant rates and concentrations are lower. Typically used with one or two Enclosures or Telescopic Mini Arms for at-source pollution control, or as a Recirculator to reduce ambient gas levels. The Telescopic Mini Arm is self-supporting and has various manoeuvrable joints and a telescopic section. A range of nozzles attach to the Arm, including the Ozone Universal Nozzle.



GS2, SD49, KU50, NU50, KH50



GS2, SD49

The Cleaner has a maintenance free 100,000 hour rated motor which is located out of the filtered airstream for increased safety. Discharge ducting can also be added to the outlet spigot when total protection is required. The Gas Filter Cartridge contains 4kg of adsorption media and is fully enclosed within the Cleaner's corrosion-resistant case.

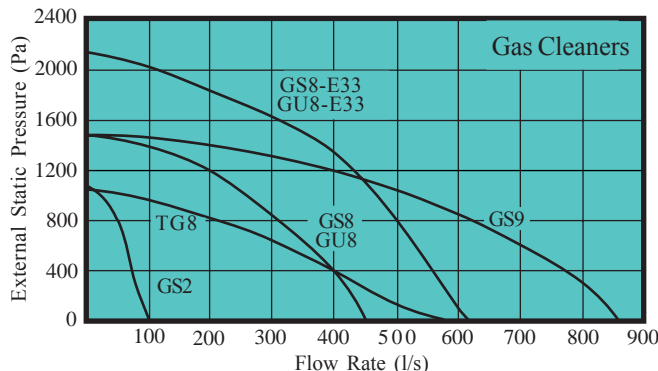
Six alternative media types are available. Used cartridges can be either refilled with fresh media or simply replaced. The Gas Filter Cartridge is protected by an electrically-charged prefilter, which extends the life of the main gas cartridge. The GS2 Cleaner is supplied with wheels and a carry handle.

Applications

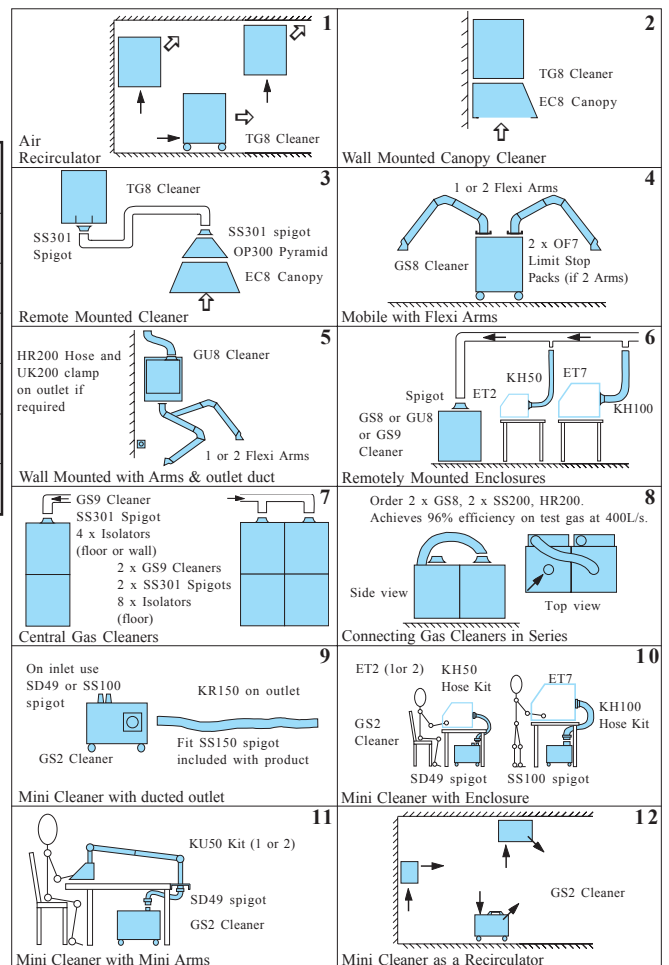
The Oztec database allows selection of six adsorption media to match your specified conditions and pollutant.

Gas Media Code	Type	Applications	Efficiency*		Holding Capacity	Test Gas	Cartridge media kg		Non combu stable	Media life Indicator
			Low Flow	Std Flow			CG8	CG21		
MG1	Activated carbon	General air purification. Medium to high molecular weight gases.	95%	90%	35%	Carbon tetra chloride	16.1	4.0	-	-
MG2	Activated carbon impregnated	Acidic gases, hydrogen sulphide, mercaptans, etc.	90%	80%	15%	Hydrogen sulphide	19.3	4.8	-	-
MG3	Activated carbon impregnated	Nitrogenous gases: ammonia, amines, etc.	90%	80%	10%	Ammonia	21.5	5.4	-	-
MG4	Activated alumina impregnated	General air purification. Also readily oxidisable gases: eg. aldehydes, organic vapours.	90%	80%	10%	Hydrogen sulphide	27.0	6.7	Yes	Yes
MG5	Activated alumina impregnated	Acid gases. Also halogens: fluorine, chlorine, bromine, iodine, etc.	90%	80%	10%	Chlorine	27.0	6.7	Yes	Yes
MG6	Activated Zeolite	Nitrogenous gases. Also low molecular weight gases: carbon dioxide, methane, etc.	95%	90%	8%	Ammonia	18.2	4.6	Yes	-

* Low Flow = 200L/s (GS9), 100L/s (TG8, GS8, GU8), 25L/s (GS2).
Standard Flow = 400L/s (GS9), 200L/s (TG8, GS8, GU8), 50L/s (GS2).
Efficiencies and Holding Capacities are indicative and for Test Gas only.



Curves show static pressure at Cleaner inlet. Set equal to static pressure of upstream system (system losses + velocity pressure at inlet). Tested with clean filters, ducted inlet (GS2 100mm, GS8/GU8 200mm, GS9/TG8 300mm), free outlet, TG8 inline flow, other models right angle flow, standard Cleaner with MG1 media at end of system (AMCA or BS type C).



Ozone products are shown in blue. All necessary connections are included with the products so they simply bolt together. The "words" in each box fully describe the set of Ozone products to be ordered for a complete system. See Accessories section for codes.

Data Table

Cleaner Code →	TG8	GS8	GU8	GS9	GS2
Application	Recirculator/Canopy	Flexi Arms or Duct		Central Systems	Mini Cleaner
Maximum number of inlets typically connected	- Flexi Arms (200L/s each)	-	2	4	-
	- Canopy (400L/s)	1	-	2	-
	- Enclosure ET2 (40L/s each)	-	6	10	2
	- Enclosure ET7 (75L/s each)	-	3	6	1
	- Mini Arms (20L/s each)	-	10	20	2
Dimensions, as standard (case & wheels only)	- Width W (mm)	700	740	700	320
	- Length L (mm)	960	980	960	570
	- Height H (mm)	910	1030	910	450
Weight, as standard (kg)		160	175	160	33
Gas Media (kg) - Media type MG1 as standard		16		16	4
Sound Pressure Level, semi-reverberant, 1m front, ducted inlet (dBA)		72	71	72	74
Outlet spigot included		-	1 x 200	2 x 200	1 x 150
Inlet spigot accessory, order for hose or duct on inlet	1 x 300		1 x 200 or 2 x 150	1 x 300	1 x 100 or 2 x 50
Recommended Maximum Flow	575		400	800	100
↓ Option Code				↓2 rotors	
E11 Extractors	- 1kW, 1-phase (switch, 10m flex, plug)	-	Standard	Standard	-
E33	- 3kW, 3-phase (contactor, overload)	-	Option	Option	-
Q11	- 1kW, 1-phase (switch, 10m flex, plug)	Standard	-	-	-
Q134	- 1kW, 3-phase, Class 1, Zone 1 Exe	Option	Option	Option	-
-	- 0.6kW, 1-phase (switch, 2m flex, plug)	-	-	-	Standard
F Mounting	- Fixed	Standard	Option	Standard	-
N	- Mobile, 2 castors, 2 pneumatics	Option	Standard	-	-
S	- Mobile, 4 castors wheels	Option	Option	-	Standard

Gas Cleaners

How To Order Gas Cleaners

Options

Choose Cleaner Code from above table

Extractor: Leave blank if standard, or **Code** if option

Mounting: Leave blank if standard, or **Code** if option

Gas Cartridge: All Gas Cleaners include Gas Media type MG1 as standard. If another required, specify in writing.

Then choose Accessories from the diagrams opposite.

Example: Application 4 on previous page, with 1 Arm for Ammonia gas, fixed to floor. Order: GS8-F, AF3, filled with MG3 media.

Note: if ordering for overseas, also specify phase, voltage and frequency

Technical and Safety notes

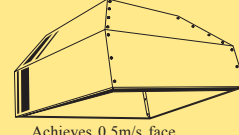

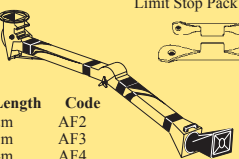
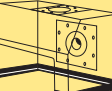





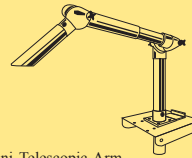
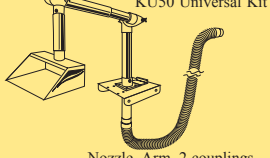
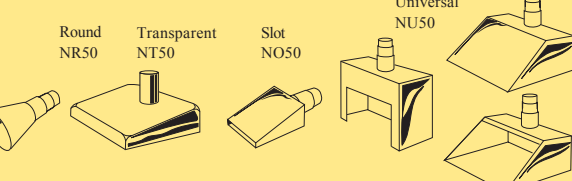
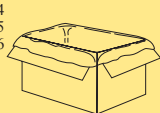
- Media type MG4 discolours from purple to black/grey, and type MG5 from yellow to pink/white to indicate end of life. Other types do not discolour. Standard products have MG1 media. All gas adsorption filters have finite life and reduce in efficiency when substantially loaded. Therefore, if gas is potentially toxic, the customer should duct the outlet to outside the building.
- When connecting Gas Cleaners to Enclosures or Fume Cabinets or the Universal Nozzle, position the Cleaner a suitable distance away, and outside any hazardous areas.
- If requiring a low static system: order low static hose, electrically bond between inlet/hose/duct/Cleaner at all connections, then earth. Check bonding/earthing periodically.
- The gas media life of the Ozone Gas Cartridge Filter, can be estimated as follows, at STP(1.013kPa, 25°C), for a single gas pollutant in air:

$$L = (38,050 WH) \div (QEUC)$$

Variable	Description	Units	Eg (CCl ₄ gas)
L	Elapsed calendar time	months	18
W	Weight of gas media in filter	kg	16(CG8)
H	Holding capacity of media, for gas pollutant	%	35
Q	Flow rate through product (air + gas pollutant)	l/s	100
E	Filtration efficiency of media for gas pollutant	%	95
U	Utilisation of product (eg 3 hours every day)	%	12.5
C	Concentration of gas pollutant in air	mg/m ³	10

Note also: C = 0.041 PM = 410 VM = 11,870 W
- The customer must specify media types MG4, MG5 or MG6 if there is risk of combustion. Adsorption of high concentrations of some gases is exothermic and can cause carbon to burn and gas/air to explode.
- Read Instruction Manuals provided before operating products.
- This brochure describes **standard** products, designed for use in non-hazardous areas and for use with nuisance pollutants which are not: explosive, flammable, hot/incendiary, mixtures of sparks and combustibles, corrosive or toxic. If risk of toxic pollutants (concentrations in breathing zone above exposure standards/TLVs), also consider: ducting outside, product after-filters, outlet monitors, or personal respirators. Requests for non-standard products or particular capture/filtration efficiencies or filters, must be stated in writing on customer's final order and if accepted will be restated on Ozone's invoice.
- It is impossible to list all the potential safety issues associated with pollution control. Ozone is a supplier of standard products, not a consultant or contractor. We rely on the customer and their agents to safely select products, design connected systems, and install/operate/maintain these products and systems, to suit **their** pollutant. Customers should consult and comply with relevant National and State laws/regulations/standards.
- Flexi Arm, Extractor and Channel Cartridge patents are pending.

How to Order Accessories

 <p>Achieves 0.5m/s face velocity at 400L/s flow rate</p> <p>Canopy EC8</p>	 <table border="1"> <thead> <tr> <th>Diam</th> <th>Spigot Code</th> <th>Bolts to Cleaner Inlet</th> </tr> </thead> <tbody> <tr> <td>2 x 50mm</td> <td>SD49</td> <td>GS2</td> </tr> <tr> <td>100mm</td> <td>SS100</td> <td>GS2, GS8, GU8</td> </tr> <tr> <td>150mm</td> <td>SS150</td> <td>GS8, GU8</td> </tr> <tr> <td>200mm</td> <td>SS200</td> <td>GS8, GU8</td> </tr> <tr> <td>300mm</td> <td>SS301</td> <td>TG8, GS9</td> </tr> </tbody> </table>	Diam	Spigot Code	Bolts to Cleaner Inlet	2 x 50mm	SD49	GS2	100mm	SS100	GS2, GS8, GU8	150mm	SS150	GS8, GU8	200mm	SS200	GS8, GU8	300mm	SS301	TG8, GS9																							
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<table border="1"> <thead> <tr> <th>Round</th> <th>Transparent</th> <th>Slot</th> </tr> </thead> <tbody> <tr> <td>NR50</td> <td>NT50</td> <td>NO50</td> </tr> </tbody> </table>  <p>Nozzles for Mini Telescopic Arm</p>	Round	Transparent	Slot	NR50	NT50	NO50	<table border="1"> <thead> <tr> <th>Cleaner</th> <th>Cartridge*</th> <th>Pre Filters</th> <th>Gas Media Code</th> <th>Kg in Container</th> </tr> </thead> <tbody> <tr> <td>TG8, GS8, GU8</td> <td>CG8</td> <td>2 x ME8</td> <td>MG1</td> <td>13.6</td> </tr> <tr> <td>GS9</td> <td>2 x CG8</td> <td>4 x ME8</td> <td>MG2</td> <td>15.9</td> </tr> <tr> <td>GS2</td> <td>CG21</td> <td>ME2</td> <td>MG3</td> <td>18.2</td> </tr> <tr> <td></td> <td></td> <td></td> <td>MG4</td> <td>18.2</td> </tr> <tr> <td></td> <td></td> <td></td> <td>MG5</td> <td>18.2</td> </tr> <tr> <td></td> <td></td> <td></td> <td>MG6</td> <td>18.2</td> </tr> </tbody> </table> <p>*Contains media type MG1 as standard Spare Gas Cartridges & Pre Filters</p>  <p>Replacement Gas Media</p>	Cleaner	Cartridge*	Pre Filters	Gas Media Code	Kg in Container	TG8, GS8, GU8	CG8	2 x ME8	MG1	13.6	GS9	2 x CG8	4 x ME8	MG2	15.9	GS2	CG21	ME2	MG3	18.2				MG4	18.2				MG5	18.2				MG6	18.2
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Useful Conversions

1m = 1000mm = 3.38 feet

1kg = 1000g = 2.20 pounds

1Pa = 0.102mm water = 0.004 inches water

1L/s = 3.60m³/hr = 2.12cfm

1kW = 1000W = 1.34hp

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