

## CHEMPAC FILTER MEDIA INFORMATION

### What is Media?

In the gas-phase filtration industry, *media* refers to small, dry granules, pellets, or beads that remove gaseous chemical pollutants from airstreams.

### What makes Specific Systems' Media unique?

**Permanent Gas Removal:** Our media contains special chemical ingredients which remove gaseous pollutants through a process known as *chemisorption*. During chemisorption, our media converts gases into harmless microscopic particles, which remain trapped in the pellet. This process is instantaneous and irreversible. Other media, such as activated carbon, or charcoal, remove gases through a different process known as *adsorption*. During adsorption, gases stick to the surface of the media, but since no chemical reaction occurs, gases may desorb or be released back into the air. Unlike chemisorption, adsorption is a reversible process. Used alone, adsorptive media such as activated carbon are unreliable at removing gaseous pollutants.

**Engineered for Performance:** Our media are engineered using a blend of substrates, active ingredients, and binders. Using proven techniques, the media combines these ingredients to meet our exact specifications of porosity, active ingredient content, and other factors that affect the media's performance. Other engineered-media manufacturers may use more simplistic methods of impregnating their media with active ingredients. Our engineers and manufacturers make their media from raw materials using patented formulas. Activated carbon is a natural substance that does not offer the benefits of an engineered media, such as active ingredients, to enhance performance.

### How much media do I need?

The amount of media your system requires depends upon the concentration and type of pollutants in your environment, the run hours of your HVAC system, airflow, and other factors. Specific Systems engineers will assist you in finding the right concentration for your application.

Applications	Typical Media of Choice	Gases Targeted
Catalytic Cracking, Desulphurization, Coker, Distillation, Power Generation Pit, Tank Farm, Docks	Carb Media & SP Media	Chlorine, Hydrogen Sulfide, Nitrogen Oxides, Sulphur Dioxide
De-Waxing	Carb Media, SP Media, & Akol AM Media	Chlorine, Hydrogen Sulfide, Nitrogen Oxides, Sulphur Dioxide, Ammonia
Makeup air odors from automotive exhaust, diesel fumes, and jet emissions	Triple Blend Makeup Air Media	Nitric Oxide, Nitrogen Dioxide, Sulphur Dioxide, Alcohols, Aldehydes, Hydrocarbons, Organic Acids, Organochlorides, & Sulphur Compounds
Makeup air odors from automotive exhaust, diesel fumes, and jet emissions	Triple Blend Makeup Air Media for Elevated Pollutant Levels, or SP Blend Media for Moderate Pollutant Levels	Nitric Oxide, Nitrogen Dioxide, Sulphur Dioxide, Alcohols, Aldehydes, Hydrocarbons, Organic Acids, Organochlorides, & Sulphur Compounds
Internally generated pollutants that cause poor indoor air quality	P Blend & Akol AM Media	Formaldehyde, Ammonia, VOCs, Nitrogen Dioxide
Bleach Plant, Digester, Motor Load Center, Power House Boiler, Recovery, Sludge Plant, Wood Yard	Carb & SP Media	Chlorine, Hydrogen Sulfide, Nitrogen Dioxide, Sulphur Dioxide
Pump Stations, Lift Stations, & Wet Wells	OdorCarb Media (with Media Life Indicator Pellets) and OdorMix Media	Hydrogen Sulfide, Sulphur Dioxide, Aldehydes, Amines, Mercaptans, Organics
Removal of accidentally released chlorine and/or sulphur dioxide in a worst-case release scenario	ChloroSorb Media for Chlorine removal and CSO Media for Chlorine and/or Sulphur Dioxide removal	Chlorine / Sulphur Dioxide
Internally generated pollutants from furnishings and processes in storage rooms, restoration/conservation laboratories	SP Blend Media	Sulphur Dioxide, Nitrogen Dioxide, Ozone, Hydrogen Chloride, Acetic Acid, Formaldehyde, Metallic Fumes

