Chemical Contamination Control Technology

Chemical filter
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We design and construct air cleaners and air conditioning units in addition to various chemical filters. Seeking services with high cost performance, highly purified space is realized according to the intended use and size of each customer. Based on advanced analysis technology supported by experiences, we analyze air quality before and after use of air conditioners and measure the consumption level of chemical filters used. We pursue perfect air quality by understanding the environment from various angles.

Chemical Filter

PureLite®
Pellet-type chemical filter for outdoor air treatment

PureMold
Low-dust producing pellet-type chemical filter

PureFoam
Non-Woven Fabric chemical filter

PureACT
Honeycomb chemical filter

CleanSorb II®
A chemical filter that can also be used as a middle efficiency filter

PureGate®
Pleated chemical filter

TERZETTO®
Sponge type chemical filter

PurePUT
Package type chemical filter

Arial Filter

PureDUSTOL
Middle efficiency air filter

HEPA ULPA Filter
High efficiency particulate air filters
Ultra low penetration particulate air filter

Chemical Filter Unit

Fan Filter Unit Mini Environment Clean Booth Chemical Chamber System Ceiling Chemical Filter Tank

Environmental Analysis & Research and Development

We analyze ultratrace gas in the environment of semiconductor clean rooms, etc. Characteristics of our company include prompt and accurate measurement and analysis with high efficiency analytical instruments we own. We also develop air purifiers and filters. In addition, we handle new themes received from customers, develop new materials, and research on performance improvement of existing products.
Use of chemical filters

1. Removal of trace chemical contamination
   - Improvement of yield rate for semiconductor/liquid crystal production
   - Environmental improvement for production of electronic parts
   - Environmental improvement for lab experiments in each field

2. Deodorization (odor measure) / improvement of the work environment
   - Removal of substances controlled under the Offensive Odor Control Act
   - Measure against complaints about odor to neighborhood residents
   - Improvement of the work environment by deodorization and chemical substance removal

3. Corrosion prevention of electronic parts and metals
   - Protection of facilities, electronic parts, and metals from corrosive gas

4. Protection of fine arts and important cultural properties
   - Degradation prevention of items collected at art museums as well as repositories

Usage example of chemical filters

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Guide on filter design

Chemical filters are high efficiency chemical adsorbents used in a dry form that requires appropriate filter design to draw out their performance.

Wet chemical filters used in a wide variety of fields are suitable for difficult gas treatment in a low concentration range.

Chemical filter design seems to involve much anxiety since it relates to understanding on types, concentrations, etc. of target gas, design of secondary concentration and lifetime, etc. and is difficult to uniformly determine the type, the amount used, the usage, etc.

Alteration, etc. after operation as a postmortem measure requires more costs and labor than initial installation.
We recommend you to inquire us for details upon chemical filter design, to give sufficient consideration to gain good results.

With abundant experiences and achievements, our company can handle a wide variety encompassing selection of chemical filters, design and manufacture of filters and overall air purification system, analysis of precision gas and degree of filter deterioration that is considered as important, follow-up service such as maintenance in the future, etc.

Design procedure

1. Understanding of the target environment for treatment
Understand the target air for treatment, name of gas, concentration, temperature, humidity, air volume, etc. Please consider alternatives or contact us if anything is not clear.

2. Planning of system overview
Establish or assume the concentration or lifetime after treatment. Plan the overview of treatment system (also consider the wet type, etc. separately).

3. Filter design
Design the most suitable chemical filter and filter method among various types, according to the usage requirements such as the target gas, air volume, place of installation, etc.

4. Design of filter surroundings
Design peripheral instruments such as demisters, pre-/after-filters, medium/high efficiency filters, fans, etc.

5. Confirmation of operation and effects
Give some consideration to design to be able to confirm effects with gas analysis, etc. for performance evaluation if necessary. Follow up the effects and investigate the consumption level of filters while confirming the operation status.