

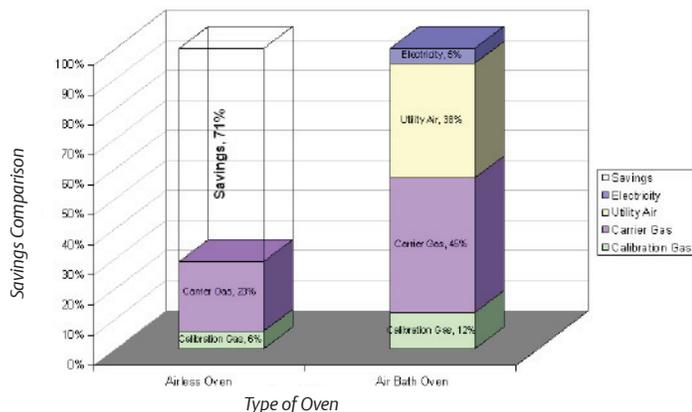
Emerson's Process Gas Chromatographs Offer Lower Total Cost of Ownership

When comparing Process Gas chromatographs and determining the total cost of ownership, you should consider more than just equipment cost and suitability of the application. One must factor in installation costs, reoccurring utilities expenses (power and gas), maintenance, and serviceability over the life of the unit. All of these can drastically increase or minimize your actual production costs and impact your bottom line. Here are a few things you should consider before you purchase your next GC:

The Type of Oven Matters

When it comes to gas chromatographs, airless ovens help to reduce operating expenses. Emerson offers a fieldmounted gas chromatograph with an airless oven that consumes less power and utilities than traditional airbath ovens and takes up less space. It also offers an explosion-proof and flameproof enclosure that allows mounting closer to the plant, which helps to ensure an accurate measurement.

Figure 1 - Operating Expenses for Airless and Airbath Ovens



Airless gas chromatographs offer savings of more than 70 % over airbath gas chromatographs through reduced usage of carrier gas and calibration gas, and by requiring no utility air.

The Type of Shelter Matters

Analyzer shelters can be one of the most substantial expenses associated with your analytical solution. You have three options when it comes to shelters – 1) a complete analyzer house, 2) a three-sided shelter or sunshield, or 3) a fieldmounted GC with no shelter. Emerson Process Management offers all three solutions. The right solution for you depends on your goals for the project.

Analyzer Houses

Complete analyzer houses are the most costly option. In addition to an expensive enclosed structure, there are significant hidden costs associated with an analyzer house, including high shipping fees, extensive cabling and tray requirements, increased assembly and installation costs, high maintenance fees, more required spare parts, and high utility and power consumption.

Because an analyzer house can potentially entrap hazardous gases, additional capital expenses, including hazardous area compliance, safety systems, and fire and gas detection systems, are often required.

Even when analyzer houses are the right choice for you – as is often the case for plants in extremely hot or cold climates, where the safety and comfort of the employees is an important consideration, field-mounted analyzers offer the flexibility to enable you to handle changes in your analytical structure. If you need to add one or two analyzers at a later date, field-mounted gas chromatographs allow you to mount the new analyzers in the field without purchasing an entirely new analyzer house.

Even if your new analytical purchase includes temperature-sensitive equipment, you can simply move one of your Emerson field-mountable gas chromatographs into the field to make room for the new, environmentally sensitive analyzer.

Three-sided shelters or sunshields

Because they are designed with an open structure, three-sided shelter and sunshields have no risk of entrapment of hazardous gases, and, as such, offer a lower cost solution by not requiring HVAC equipment, a safety system, or fire and gas detection systems. Also, shipping expenses are significantly less because a three-sided shelter weighs considerably less than an analyzer house. There will still be capital expenses associated with cabling and trays, assembly and installation, and maintenance and spare parts, but it will be lower than the capital expenses associated with an analyzer house.

Field-mounted solution (no shelter)

Field-mounted gas chromatographs that offer a flameproof and weatherproof enclosure provide the greatest CAPEX savings. There are no shelter-related expenses, and, in most cases, the only cabling that is required is the cabling that comes with the gas chromatograph. Shipping expenses are very low, and assembly and installation can be done by your experienced analyzer technician, or by one of our expert SureService field engineers. Emerson's field-mounted GCs, by design, require minimal maintenance and very few spare parts

An Easy Upgrade Matters

Analyzer upgrade projects can be streamlined and simplified through the use of field-mountable gas chromatographs. Emerson's fieldmountable gas chromatographs don't require the precise control of temperature-sensitive gas chromatographs, allowing the reuse of existing analyzer houses and eliminating the demolition of old shelters.

www.RosemountAnalytical.com

www.analyticexpert.com

www.twitter.com/RAIhome

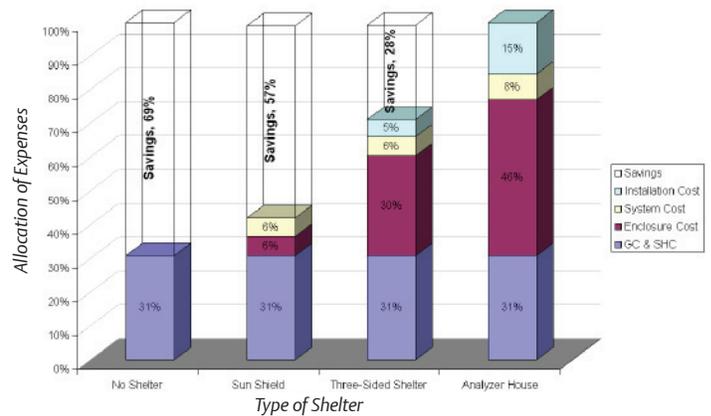
Emerson Process Management
 Rosemount Analytical
 Gas Chromatograph Center of Excellence
 10241 West Little York, Suite 200
 Houston, TX 77040 USA
 Toll Free 866 422 3683
 T +1 713 396 8880 (North America)
 T +1 713 396 8759 (Latin America)
 F +1 713 466 8175
gc.csc@emerson.com
www.RosemountAnalytical.com

©2012 Emerson Process Management. All rights reserved.

The Emerson logo is a trademark and service mark of Emerson Electric Co. Rosemount Analytical is a mark of one of the Emerson Process Management family of companies. All other marks are the property of their respective owners.

The contents of this publication are presented for information purposes only, and while effort has been made to ensure their accuracy, they are not to be construed as warranties or guarantees, express or implied, regarding the products or services described herein or their use or applicability. All sales are governed by our terms and conditions, which are available on request. We reserve the right to modify or improve the designs or specifications of our products at any time without notice.

Figure 2 - Total Capex Requirements Associated with Type of GC Shelter



Field-mountable gas chromatographs offer a 69% savings over an analytical project with a comparable gas chromatograph installation that uses a fully enclosed analyzer house.

Your Bottom Line Matters

The right analyzer solution will be unique to each customer. The type of analyzer and analyzer shelter can have a tremendous impact on both capital expenses and long-term operational expenses. Rosemount Analytical is a fullservice, total-solution analytical provider, and we work with each customer to define, design, engineer, and install an analytical solution that will best fit your needs, as well as your budget.

For a customized savings calculation or to learn how Rosemount Analytical can reduce the cost of ownership on your next GC application, please contact your local account representative.