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## CASE STUDY

Plasma Air's PlasmaSoft™ Helps Atlas Design & Engineering Reduce Outside Air Intake and Associated Equipment Costs in Client Buildings

- Enabled easy calculations for ASHRAE compliance
- Lowered CapEx and OpEx associated with HVAC equipment

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*“ PlasmaSoft is a unique program, unlike anything we've seen in the past”*

- John Bruno  
Atlas Design and Engineering

## Atlas Design & Engineering

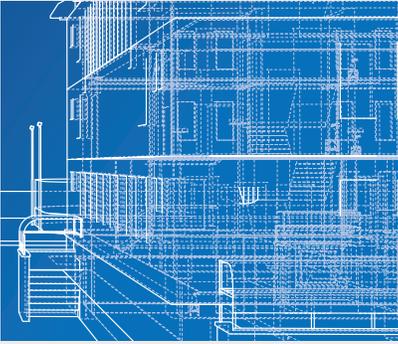
### BACKGROUND

Atlas Design & Engineering is a multi-disciplined engineering firm with expertise in structural, mechanical, electrical and plumbing design. Located in Fort Myers, Florida, the award-winning firm specializes in projects ranging from residential to large-scale commercial buildings.

Atlas's primary focus is to deliver functional, low-maintenance solutions that lower costs and simplify building management. They are always on the lookout for innovative solutions that cut costs and provide a healthy, comfortable, and compliant indoor air environment for their customers.

### THE CHALLENGE

Typical hot and humid Floridian weather is not particularly conducive to creating and sustaining an optimal cool, dry and purified indoor air environment. As Atlas works with clients to develop HVAC solutions that both fit their individual needs and satisfy ASHRAE standards, identifying useful tools and technologies to achieve this type of environment within their buildings is a critical component of the overall process — and precisely what customers are looking for when choosing an engineering partner during the initial stages of facility design.



Outside air intake is necessary to provide proper ventilation for healthy indoor environments. However, too much outside air presents a particularly challenging situation in humid locations, as the outside air must be properly conditioned for indoor use. Such air conditioning can easily burn through energy and equipment resources, and therefore, budgets. With the inability to perform complex Indoor Air Quality Procedure (IAQP) calculations, many Atlas customers were forced to rely on the expensive Ventilation Rate Method, resulting in many of these building owners and operators using more outdoor air than necessary in an attempt to maintain ASHRAE compliance.

## THE SOLUTION

Atlas selected Plasma Air's PlasmaSoft™ IAQP software to help its customers properly reduce outside air intake. PlasmaSoft provides a turnkey, easy-to-use solution for the execution of complex calculations required by the IAQP. The first web-based program of its kind, PlasmaSoft offers users the ability to calculate and compare contaminant levels to potentially reduce code-required outside air intake, resulting in lower costs to the customer. The software was recognized by ASHRAE as an AHR EXPO Innovation Award Winner for its ability to perform complex calculations critical to achieving decreased CapEx and OpEx.

## THE RESULTS

Utilizing PlasmaSoft™ software coupled with Plasma Air's air purification system, Atlas is able to help customers lower capital and operational expenses through a reduction in outside air intake, while simultaneously enhancing energy efficiency and improving indoor air quality. With PlasmaSoft, Atlas' commercial, institutional and industrial customers benefit from an easier way to regulate indoor air quality, analyze air contaminant levels and efficiently eliminate airborne pollutants in their buildings.

As Atlas Mechanical Engineer John Bruno explained, "PlasmaSoft is a unique program, unlike anything we've seen in the past. It removes all of the guesswork from complex calculations as we attempt to determine system compliance within building architecture, and has been an incredible asset to our company, allowing us yet another way to meet and exceed client expectations."



- Includes all ASHRAE Standard 62.1 mass-balance equations
- Automatically calculates values for density and outdoor air rates per person and per square foot for all occupancy categories