

EBCx Services

Has over 40 years of experience making buildings operate safely, comfortably and energy efficiently.

Our business started as a family owned mechanical contractor in Miami, FL, founded by Cal Gordon in 1958.

Scott Gordon, Cal's son started working in the business in 1973. With over four decades of experience in the mechanical contracting, controls, engineering and energy services industries, Scott established EBCx Services in 2016.

The history behind EBCx Services provides decades of hands-on experience helping to make the built environment operate safely, comfortably and energy efficiently. We roll up our sleeves and do what it takes to make buildings work.

Services

- Indoor Air Quality (IAQ) Investigations
- Existing Building Commissioning (EBCx, RCx)
- Testing, Adjusting & Balancing (TAB) of HVAC Systems
- New Building Commissioning (Cx)
- Performance Verification (PV)
- Measurement & Verification (M&V)
- Control System Retuning
- Trouble Shooting / Diagnostics
- Building Enclosure Testing
- Energy Audits / Assessments
- Thermal Infrared Imaging / Analysis
- Training

Credentials

- Certified Indoor Air Quality Professional (CIAQP)
- NEBB Certified Professional
- Class A Certified Air Conditioning Contractor Florida (CAC021304)
- Certified Energy Manager (CEM)
- Certified Measurement & Verification Professional (CMVP)
- Tridium Niagara N4 Certified
- Certificate Member (CM) with RSES
- LEED AP O+M

Associations

- NEBB
- ASHRAE
- Association of Energy Engineers (AEE)
- Refrigeration Service Engineers Society (RSES)

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EBCx Services
Optimizing Buildings since 1981

**Improving Indoor
Air Quality (IAQ)
in Existing
Buildings**



HVAC Systems and People's Health

The Covid-19 Pandemic has forever changed how people view HVAC systems, as it is well established that HVAC systems are critical to maintaining a healthy indoor environment.

The air inside buildings recirculates through the HVAC system, and without proper design, operation, and maintenance, is a major contributor to IAQ problems.

HVAC systems serve as the lungs of a building, bringing in fresh outside air while exhausting a percentage of stale recirculated air.

Understanding how a virus becomes airborne is a complicated subject, however studies from Covid-19 cases show that the virus spreads rapidly with indoor events that bring lots of people together. Viruses also spread within buildings that have poor ventilation.

Various studies have established that the HVAC system is responsible for 50 to 60 percent of building generated IAQ problems. The HVAC system can resolve up to 80 percent of IAQ problems. In other words, if a building is "sick", chances are the HVAC system is at fault, or at least a contributor to the problem and can often remedy the problem.

EBCx Services utilizes a hands-on approach of isolating IAQ issues through a structured process which focuses on the root cause of IAQ problems. Our approach includes site interviews with building staff, system/equipment inspections, and testing of critical variables including CO2 and CO levels, air particle size and concentration, space temperatures/humidity, ventilation rates and building pressure.

According to the Environmental Protection Agency (EPA), the average American spends 87% of their life indoors. Additionally, air quality inside a building is often 2 to 5 times worse than outside.

Common Causes of IAQ Problems

- Improper design of HVAC system
- Inadequate ventilation rates
- Loading docks near outdoor air intakes
- Inadequate maintenance of HVAC systems
- Poor air filtration
- Building pressurization issues
- Poor control sequences
- Building envelope leakage issues
- Cleaning chemicals stored inside open return air equipment rooms
- Inadequate cleaning chemicals/procedures
- Off gassing of building materials
- High level of particles suspended in the airstream that may transmit viruses



Balancing IAQ and Energy

Increasing energy efficiency and improving IAQ is possible. Rather than layering IAQ requirements over energy needs, the two should be regarded as integral parts of one product. Many factors such as good overall maintenance and optimized controls have a positive impact on energy and IAQ. The net balance between IAQ and energy provides a building that operates safely, comfortably and energy efficiently.



Why EBCx Services

EBCx Services holds certification with the Association of Energy Engineers (AEE) as a Certified Indoor Air Quality Professional (CIAQP.) CIAQP certification is recognition for IAQ professionals who have demonstrated a high level of competence in their field, and an in-depth knowledge of the principles and practices of indoor air quality assessment, design, management, and problem mitigation.



Additionally, EBCx Services holds certification with AEE as a Certified Energy Manager (CEM.) We understand how to balance IAQ and energy requirements to provide solutions that bring the greatest value to our customers. EBCx Services focuses on the HVAC system, building envelope and how a building is operated to identify the root cause of IAQ issues. Our goal is to provide safe, comfortable and energy efficient buildings where people live, work, and enjoy life.

