

Service Overview

Coil coating is a precise process of applying specialized material to the fins and tubing of an air conditioner coil, after very stringent cleaning and drying processes are performed, to prevent premature coil tube and fin deterioration caused by exposure to corrosive atmospheres.

Bebco is a nationally recognized manufacturer of industrial duty HVAC equipment for industrial applications, and has provided coil coatings on our highly specialized products over a period of thirty years, that are now deployed worldwide.

However, while coil coating is often required by our industrial clients and essential coast to coast in Florida, our research has revealed that this valuable protection is rarely applied to condenser units installed at commercial and residential locations in the Texas Gulf Coast Region. As a result, many business and home owners are paying the price, as their condenser units fail much sooner than expected, due to the high concentrations of airborne corrosive chemicals and salt particles that are prevalent in our local coastal communities.

Responding to this obvious need, we've elected to offer this comprehensive service through local commercial and residential service providers, to complement their preventive maintenance programs. We can then optimize our investment in training and equipment to apply these specialized coil coatings and pass our savings along to all clients.

Additionally, some units feature galvanized steel bases and other internal metal parts that don't provide the same level of resistance to chemical attack as your unit's painted housing. To address this issue, we can also easily coat these surfaces, to significantly enhance overall unit protection, thus greatly enhancing the unit's predictable service life.

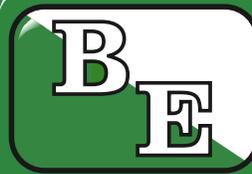
Cost Justification

As your service provider can easily confirm, premature coil failure can occur very quickly near coastlines and chemical manufacturing facilities. Regrettably, the most likely outcome you'll then face is unit replacement, because the cost of coil replacement by far exceeds a new unit's cost. While it's true this risk dissipates as distance from airborne contaminants increases, the outcome is still just as expensive.

Bebco's premier coil and optional housing coating services are designed to address this risk preemptively, by ensuring the most fragile and otherwise least protected major component of your condenser unit is fully protected prior to installation. This proactive solution can extend condenser unit service life by three to five times, yielding significant savings, as compared to the need for routine replacement of failed units over the course of business property operations or home occupancy.

Need additional proof? We'll be pleased to provide you with numerous studies documenting the value of our coil coatings. Proven by independent studies, our coil coatings significantly extend the lifespan of your unit. In turn, you can easily justify your investment by greatly extending your unit's service life.

Best of all, we offer warranties of up to 5 years for our service, as performed in a highly professional manner, utilizing a premier industrial duty coil coating of your choice. Coatings are applied under extremely controlled conditions and rigorous quality assurance procedures, to ensure absolute protection and preservation of your entire condenser unit. The end result is guaranteed performance and peace of mind.



Premier Coil Coating Service

Condenser Coil Coating for Commercial & Residential Units

Technical Bulletin BECC-PCCS-R1

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Call now for more information on our exclusive premium coil coating products and services!



Epoxy-Silane Coating, certified for 3,500 hours of salt fog testing in accordance with ASTM Testing Standard B117 and 4,200 hours of cyclic corrosion in accordance with ISO Standard 12944-9, along with exceptional resistance to harsh solvents including acetone, in accordance with ASTM Testing Standard D5402!

Insitu[®] coil and cabinet protection



Water Based Synthetic Flexible Polymer Coating, certified for 5,000 hours of salt fog testing in accordance with ASTM Testing Standard B117-11 and exceptional chemical resistance in accordance with ISO Test Method 2812-1!

MICROGUARD[®] POWERED BY: **Adsil**[®]
CORPORATION
Preserve | Prolong | Protect

Siloxane Coating, certified for 6,000 hours of salt fog testing in accordance with ASTM Testing Standard B117 and certified for exceptional resistance to fungal growth in accordance with ASTM Standard G21!

Comprehensive Condenser Unit Coil & Housing Protection from a local Industrial Manufacturer!



Bebco Environmental
Hazardous & Industrial Climate Control Solutions

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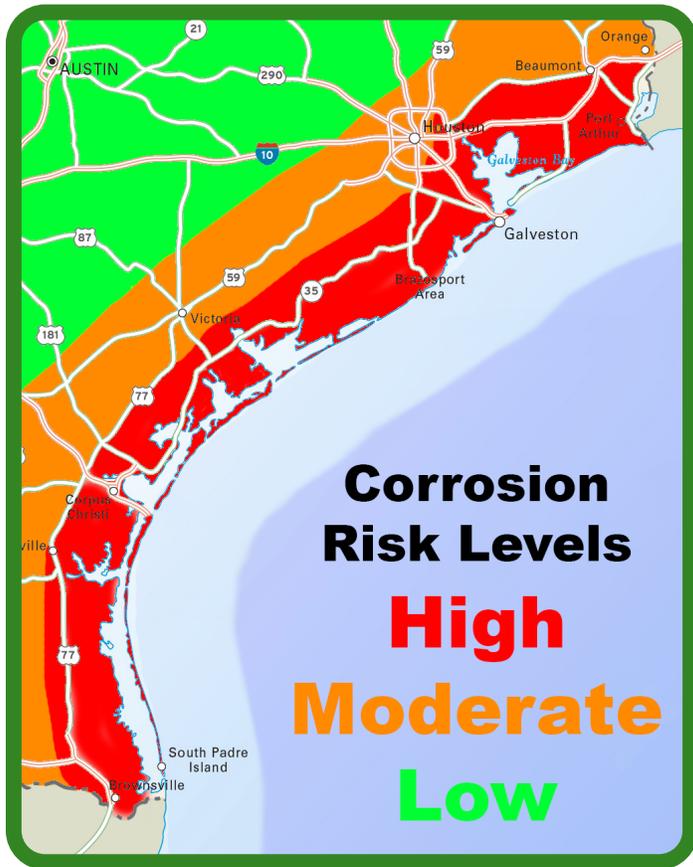
Assessing Your Potential Risk

Respective of any viable preventive maintenance program, it's essential to establish a known risk level, and then take appropriate or recommended steps to preemptively address concerns, rather than trying to overcome them after damage occurs. Essentially, this is why we routinely replace our car fluids, take time to clean our gutters, and perform other routine maintenance to preserve and protect our valuable investments.

However, as noted in our overview, many local business and home owners remain unaware of the values and benefits of coil coatings, even though we live in an area that we share with many petrochemical refineries, in close proximity to the salt-laden Gulf of Mexico.

Proximity Matters

As color-coded below in a map of our local coastal region, risk for premature condenser coil failure can be easily associated with your proximity to our beloved coast line and directly correlated concentrations of refineries:



As illustrated, those of us who live and work along the coast face the greatest risk, which thankfully diminishes around 50 miles beyond the Gulf Coast. However, as you'll learn, many factory unit warranties are useless!

Consider your risk another way by reviewing this basic guide, where 10 represents the greatest risk, in relation to the distance from our coastline:

Risk Level	Distance from the Gulf Coast
1	50 miles or more
2-3	25 to 49 miles
4-6	8 to 24 miles
7-8	3 to 7 miles
9-10	2 miles or less

Would you prefer an independent source of risk assessment?

For more information regarding levels of salt air in our coastal environment, visit this link: <https://pomametals.com/salt-air-inland-distance-for-metal>

Important FAQs & Answers

My unit has a ten year warranty. Why do I need a coil coating?

- Read your unit warranty carefully, and you'll find an exception of "What's Not Covered" that probably reads something like this:

"Damage as a result of floods, fire, winds, lightning, accidents, corrosive atmosphere, or other conditions beyond our control."

- **In short, if your coil corrodes, your warranty is null and void!**

What is the average cost of your service?

- The cost of coil coatings will vary from \$750 to \$1,250 per unit, depending on your unit quantity and size, the coating you select and whether you request our optional housing coating service.

What is the time line for a positive return on my investment?

- As noted above, your unit will have no warranty if it corrodes. Our coating will typically range from \$150.00 to \$250.00 per year under our 5 year warranty. By comparison, your unit cost will typically range between \$400 to \$1,000 per year over five years, if it actually lasts that long. Simply put, your coating is guaranteed and costs less per year than the cost per year required to replaced your unit.

If I clean my unit regularly, is there really any need to coat my coils?

- This is a great question, but the answer may surprise you. If you use mild soap and a pressure washer, cleaning is actually advised, but only if your unit is located further than 50 miles from the coast. Near the coast, cleaning removes corrosive particles and deteriorated metal, which then accelerates the corrosion process.
- Even worse, some home owners apply over-the-counter coil cleaners, many of which are extremely aggressive. These harsh chemicals attack the surface of coil fins and tubing, creating pits and surface irregularities at a microscopic level. In turn, this increases the exposed surface area. Airborne corrosive chemicals then settle in the pitted surface and cause even greater damage to the surface immediately after cleaning, beginning with a clean new layer of metal to deteriorate. In short, the more you clean, and the more aggressive the chemicals you use, the more you expose your coils to the very destructive substances you're trying to remove.
- However, after coils are properly coated, routine cleaning with mild soap and low pressure will extend the life of the coating, and thus help prevent corrosive effects. We therefore recommend that you allow your service provider to perform routine cleaning as required.

If my service provider recently installed a new unit, is it too late?

- This will depend greatly on how long your unit has been in service, and the professional opinion of your service provider. If there are no significant signs of premature corrosion, and you agree to take retroactive steps to protect your investment, your service provider can arrange coating at your site. This service is more expensive, but it's still possible to recuperate your investment within one year.

How do I get the coils of a new or existing condenser unit coated?

- Our core delivery method for this unique service is a business to business model, in collaboration with your preferred service provider. This ensures your ultimate satisfaction and an opportunity to properly arrange a proactive preventive maintenance program.
- Essentially, once you make the critical decision to act, your service provider will contact us and manage the entire process for you.
- Preventive maintenance is normally performed as semi-annual or annual inspections to ensure proper operation of components we can't protect. These components include the fan blade, fan motor, compressor, in-line condensate filter, contactor, and capacitors. Additionally, this service ensures your unit is cleaned as needed, properly charged and runs at peak performance levels for the many years of extended service life our coil coatings will achieve for you.

For answers to other critical questions, feel free to contact us or your preferred service provider during normal business hours!

Bebco's Preventive Maintenance Benefits

The benefits of using Bebco to supplement or provide a total and effective preventive maintenance program are immeasurable in many respects, especially for industrial or hazardous location HVAC units which by their nature are exponentially more expensive to purchase and repair, as compared to their residential or commercial counterparts.

Additionally, our preventive maintenance programs also yield a significant number of advantages, by tracking trends of component degradation, reducing overall wear, increasing overall energy efficiency, maintaining efficient performance and preventing unnecessary contamination of a work space.

All preventive maintenance procedures begin with replacement of disposable intake and return air filters and careful cleaning of washable filters. Beyond ensuring a clean workspace environment, clean filters greatly enhance unit performance, reduce the number of operating cycles tremendously, and also prevent contamination of fan blades and blower wheels, which can otherwise lead to premature corrosion and failure of these critical components.

Our Comprehensive and Detailed Procedures also include the critical task of measuring current consumption of all compressors and motors to detect early signs of critical or premature failure. Our Annual Procedure also includes the more often than not overlooked tasks of measuring the rotation speed of all fans and blower wheels and checking the torque of all compressor, motor fan and blower wheel mounts.

Our Comprehensive & Detailed Procedures include the recorded measurement of all critical performance aspects, which are then used to detect potential degradation trends which lead to highly critical component failures!

Our Comprehensive and Detailed Procedures also provide detailed examinations of all moving and static parts. Foremost, our technicians perform detailed examinations of all coils, refrigerant tubing, motors, blower wheels and fans, compressors, all electrical components, all wiring and the overall housing to detect any signs of excessive wear, vibration, corrosion and other forms of structural or mechanical deterioration.

Our procedures also include examination of all dampers and louvers, associated ducts, all sensors and routine maintenance such as the cleaning of drain pans and the application of antimicrobial solutions in the drain pans to prevent the development of health-hazard mold or bacteria.

Finally, as one of the most crucial aspects of our preventive maintenance procedures, Bebco also performs extremely detailed examinations of contactor and relay contacts to detect early signs of burned or pitted surfaces, detailed examinations of all capacitors to detect early signs of swelling or leaking, and UV light optical inspections of all refrigerant system joints to detect early signs of corrosion and refrigerant leaks.

Routine Service Capabilities

Routine services are performed upon your authorization and in many cases, our Technicians will have all materials and parts to conduct the following procedures during their service call, or during their next regularly scheduled maintenance call. In either case, since these services are predicated upon preventing rather than addressing unit failures, the cost of routine service is typically far less than emergency repair services, and can include maintenance, repairs and component replacement, as follows:

- Compressor replacement
- Contactor and relay replacement
- Thermal expansion valve replacement
- Housing corrosion and coating repairs
- Electrical system replacement or rewiring
- Coil and refrigerant line replacement or repair
- Fan blade, blower wheel or motor replacement
- Refrigerant line insulation repairs or replacement
- Coil and refrigerant line corrosion and coating repairs
- Washable filter replacement (upon significant deterioration)
- Thermostat and gas, airflow or humidity sensor replacement

Emergency Repair Services

Despite best efforts to exercise an effective preventive maintenance program, emergency services can be extremely vital, especially when an HVAC unit's failure halts production or disrupts critical refining processes.

Bebco therefore offers prompt emergency repair services for HVAC Units, along with pressurization ventilation and gas phase filtration systems, regardless of their origin.

Dependant on the issue and distance from our service center, technicians and all necessary parts can usually be dispatched within 12-48 hours of notification, and in extremely critical instances, our in-house stock of HVAC Units can also be utilized to provide emergency replacement units when repairs are not an option due to catastrophic events such as severe mechanical damage, fire, flood, lightning, sabotage or vandalism.



Emergency repair services quickly resolve any issue, and are provided at no cost* under our Quarterly Preventive Maintenance Program!

Emergency Service Capabilities

Emergency services most frequently focus on the following aspects of HVAC unit component repair or replacement, regardless of cause or origin:

- Entire unit replacement
- Compressor replacement
- Contactor and relay replacement
- Thermal expansion valve replacement
- Electrical system replacement or rewiring
- Coil and refrigerant line replacement or repair
- Fan blade, blower wheel or motor replacement
- Thermostat and gas, airflow or humidity sensor replacement
- Unit startup, acceptance testing and recommissioning

* Free emergency repair services limited to inherent unit failures - ask for sample contract to review terms and conditions.

Preventive Maintenance Program Pricing

Many studies have proven preventive maintenance programs are less expensive over time, as compared to emergency repairs. However, Bebcos believes traditional preventive maintenance programs with fixed pricing are extremely cost prohibitive for many Clients.

Therefore, Bebcos offers unique cost limiting options that are designed to assure your investment in our programs are equitable and worthwhile.

The cost of our Preventive Maintenance Programs consists of four basic elements, and you'll never be subjected to hidden fees or unanticipated costs, as follows and explained in more detail below:

Travel Charge **\$0.80 - \$1.20 per Mile**

To provide the lowest possible cost for transportation of our technicians to your job site, Bebcos charges a simple fixed fee for travel to and from your facility at a rate of \$0.80 per mile for a single technician and service vehicle or \$1.20 per mile for two technicians, if routine or emergency repair services requiring more than one set of hands is pre-authorized.

This fixed fee can be easily calculated using any internet route planning tool, to derive the miles from our service center to the address of your facility. When the distance is established, the travel charges are then locked in. You therefore never pay an unreasonable flat trip rate, nor do you pay an hourly rate that can be inflated by traffic jams, road construction or other impediments to traveling to and from your site in a timely manner.

Per-Diem Charge **\$100.00 - \$160.00 per Day per Technician**

Per-Diem charges apply when the distance to your facility exceeds 600 miles or when the combination of preventive maintenance procedures, regular service or emergency service exceeds 10 hours and the distance to your facility exceeds 100 miles. In these circumstances, Bebcos will provide a proposal including the per-diem cost per technician.

The variance is intended to cover lodging, meals and incidental expenses, as established by the U.S. General Services Administration and based upon your job site's zip code, which can be easily verified at this website link: <https://www.gsa.gov/travel/plan-book/per-diem-rates>

Service Charge **\$90.00 - \$120.00 per Hour per Technician**

Since many factors affect the cost of providing preventive maintenance procedures and routine or emergency repair services, we offer this hourly rate to accommodate discounts for multiple units, expeditious performance of service, or in contrast, any delays or impediments to unit access.

However, as an important exception, Bebcos appreciates and respects your facility's concerns to maintain a safe environment and therefore does not charge for any reasonable amount of time required for safety orientations or preemptive training your facility may require prior to our access. In this way, your investment to train us is matched by our mutual investment to become fully advised of your particular facility's safety requirements.

Materials & Parts Charge **Our Cost + 30%**

Bebcos provides estimated man-hours and a fully detailed bill of material with a 30% markup for recommended repair service along with our Inspection Report, after each procedure is completed. You'll then be requested to authorize those repairs prior to the performance of that additional service.

However, as an added benefit to using Bebcos, please note that disposable air filters and supplies required to complete comprehensive, detailed and basic preventive maintenance procedures are provided free of charge!

Preventive Maintenance Program Initiation

To launch a preventive maintenance program by Bebcos at your facility, please begin by contacting a Bebcos Sales Associate. We'll require the following information to develop a proposal and send you a service contract, so ask that you first gather this data to expedite your request:

- **Your company's name and billing address**
- **Your full name, phone number and email address**
- **The job site name, physical street address and zip code**
- **A designated job site contact's name and phone number**
- **A preferred Preventive Maintenance Program initiation date**
- **Accessibility information regarding each unit to be serviced**
- **The installation or commission date of all units to be serviced**
- **The brand, model and serial number of all units to be serviced**
- **Service logs or maintenance records for all units to be serviced**
- **The preferred Maintenance Program for each unit to be serviced**

On Site Preparations & Expectations

Bebcos Technicians will come to your job site fully prepared to receive any necessary safety orientations at our expense and perform the prescribed preventive maintenance procedures. Delays in access to the units which may be caused by operations, inclement weather and other circumstances beyond the Technician's control are considered billable, so please be sure that all management, safety and operation personnel are fully briefed and prepared to provide immediate unimpeded access to the HVAC units.



Bebcos Technicians arrive fully prepared to service your HVAC units!

Service may require provisions such as scaffolds, and hot work permits, which should be prepared well in advance of our Technician's arrival. For instance, in order to perform comprehensive or detailed service procedures, power must remain established to the units to facilitate key performance measurements and the Bebcos Technicians should be pre-approved to remove and reapply power to the units as required.

Preventive maintenance procedures should be anticipated to require no less than the following estimated man-hours:

- **Comprehensive Preventive Maintenance Procedures: 10-12 Hours**
- **Detailed Preventive Maintenance Procedures: 6-8 Hours**
- **Basic Preventive Maintenance Procedures: 4-6 Hours**

A detailed inspection report will be presented to the designated on site contact upon completion of any procedure, outlining all services performed all performance measurement and all repair service recommendations.

Upon authorization, Bebcos will then proceed with repair services or schedule the services at another time, depending upon material and parts availability and the nature and scope of the service required.

Call now to learn more, and feel free to request copies of our Service Contract and Highly Detailed Service Inspection Reports for your review!



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