

# TIPS VENDOR AGREEMENT

Between Tillman & Associates, Inc. and  
(Company Name)

## THE INTERLOCAL PURCHASING SYSTEM (TIPS)

For

170702 Indoor Air Quality Equipment and Services

### General Information

The Vendor Agreement ("Agreement") made and entered into by and between The Interlocal Purchasing System (hereinafter referred to as "TIPS" respectfully) a government cooperative purchasing program authorized by the Region 8 Education Service Center, having its principal place of business at 4845 US Hwy 271 North, Pittsburg, Texas 75686. This Agreement consists of the provisions set forth below, including provisions of all Attachments referenced herein. In the event of a conflict between the provisions set forth below and those contained in any Attachment, the provisions set forth shall control.

The vendor Agreement shall include and incorporate by reference this Agreement, the terms and conditions, special terms and conditions, any agreed upon amendments, as well as all of the sections of the Solicitation (RFP, RCSP, RFQ) as posted, including any addenda and the awarded vendor's proposal. Once signed, if an awarded vendor's proposal varies or is unclear in any way from the TIPS Agreement, TIPS, at its sole discretion, will decide which provision will prevail. Other documents to be included are the awarded vendor's proposals, task orders, purchase orders and any adjustments which have been issued. If deviations are submitted to TIPS by the proposing vendor as provided by and within the solicitation process, this Agreement may be amended to incorporate any agreed deviations.

The following pages will constitute the Agreement between the successful vendors(s) and TIPS.

### Definitions

**PURCHASE ORDER** is the TIPS Member's approval providing the authority to proceed with the negotiated delivery order under the Agreement. Special terms and conditions as agreed to between the vendor and TIPS Member should be added as addendums or deleted from the PO. Items such as certificate of insurance, bonding requirements, small or disadvantaged business goals are examples of possible addenda.

# Terms and Conditions

## Freight

All quotes to Members shall provide a line item for cost for freight or shipping regardless if there is a charge or not. If no charge for freight or shipping, indicate by stating "No Charge" or "\$0" or other similar indication. Shipping, delivery or freight charges shall be passed through at cost to the TIPS Member.

## Warranty Conditions

All supplies equipment and services shall include manufacturer's minimum standard warranty unless otherwise agreed to in writing with the TIPS Member. All equipment proposed shall be new unless clearly stated in writing to the TIPS Member.

## Customer Support

The Vendor shall provide timely and accurate customer support to TIPS Members. Vendors shall respond to such requests within one (1) working day after receipt of the request. Vendor shall provide training regarding products and services supplied by the Vendor unless otherwise clearly stated in writing at the time of purchase. (Unless training is a line item sold or packaged and must be purchased with product.)

## Agreements

**All Agreements and agreements** between Vendors and TIPS Members shall strictly adhere to the statutes that are set forth in the Uniform Commercial Code as most recently revised.

**Agreements for purchase** will normally be put into effect by means of a purchase order(s) or other similar document or contract executed by authorized agents of the purchasing TIPS Member.

## Tax exempt status

A taxable item sold, leased, rented to, stored, used, or consumed by any of the following governmental entities is exempted from the taxes imposed by this chapter:(1) the United States; (2) an unincorporated instrumentality of the United States; (3) a corporation that is an agency or instrumentality of the United States and is wholly owned by the United States or by another corporation wholly owned by the United States;(4) the State of Texas; (5) a Texas county, city, special district, or other political subdivision; or (6) a state, or a governmental unit of a state that borders Texas, but only to the extent that the other state or governmental unit exempts or does not impose a tax on similar sales of items to this state or a political subdivision of this state. Texas Tax Code § 151.309.

### **Assignments of Agreements**

No assignment of Agreement may be made without the prior written approval of TIPS. Payment made by a TIPS Member can only be made to the awarded Vendor or vendor assigned dealer.

### **Disclosures**

1. Vendor affirms that he/she has not given, offered to give, nor intends to give at any time hereafter any economic opportunity, future employment, gift, loan, gratuity, special discount, trip, favor or service to a public servant in connection with this Agreement.
2. Vendor shall attach, in writing, a complete description of any and all relationships that might be considered a conflict of interest in doing business with TIPS under a TIPS Agreement.
3. The vendor affirms that, to the best of his/her knowledge, the offer has been arrived at independently, and is submitted without collusion with anyone to obtain information or gain any favoritism that would in any way limit competition or give an unfair advantage over other vendors in the award of this Agreement.

### **Renewal of Agreements**

The Agreement with TIPS is for one (1) year with an option for renewal for additional consecutive years as provided in the related solicitation as specified on page one of this agreement. Total term of Agreement can be up to the number of years provided in the solicitation, if sales are reported through the Agreement and both parties agree.

### **Automatic Renewal Clauses Incorporated in Awarded Vendor Agreements with TIPS Members Resulting from the Solicitation and with the Vendor Named in this Agreement.**

NO AGREEMENT FOR GOODS OR SERVICES WITH A TIPS MEMBER BY THE AWARDED VENDOR NAMED IN THIS AGREEMENT THAT RESULTS FROM THE SOLICITATION AWARD NAMED IN THIS AGREEMENT, MAY INCORPORATE AN AUTOMATIC RENEWAL CLAUSE WITH WHICH THE TIPS MEMBER MUST COMPLY. ALL RENEWAL TERMS INCORPORATED IN AN AGREEMENT BY THE VENDOR WITH THE TIPS MEMBER SHALL ONLY BE VALID AND ENFORCEABLE WHEN THE VENDOR RECEIVES WRITTEN CONFIRMATION BY PURCHASE ORDER OR EXECUTED AGREEMENT ISSUED BY THE TIPS MEMBER FOR ANY RENEWAL PERIOD. THE PURPOSE OF THIS CLAUSE IS TO AVOID A TIPS MEMBER INADVERTENTLY RENEWING AN AGREEMENT DURING A PERIOD IN WHICH THE GOVERNING BODY OF THE TIPS MEMBER HAS NOT PROPERLY APPROPRIATED AND BUDGETED THE FUNDS TO SATISFY THE AGREEMENT RENEWAL. THIS TERM IS NOT NEGOTIABLE AND ANY AGREEMENT BETWEEN A TIPS MEMBER AND A TIPS AWARDED VENDOR WITH AN AUTOMATIC RENEWAL CLAUSE THAT CONFLICTS WITH THESE TERMS IS RENDERED VOID AND UNENFORCEABLE AS TO THE AUTOMATIC RENEWAL CLAUSE.

### **Shipments**

The Vendor shall ship ordered products within a commercially reasonable time after the receipt of the order. If a product cannot be shipped within that time, the Vendor shall notify TIPS and

the TIPS Member as to why the product has not shipped and shall provide an estimated shipping date, if applicable. TIPS or the TIPS Member may cancel the order if estimated shipping time is not acceptable.

### **Invoices**

The Vendor or vendor assigned dealer shall submit invoices, to the TIPS Member. Each invoice shall include the TIPS Member's purchase order number. The shipment tracking number or pertinent information for verification of TIPS Member receipt shall be made available upon request. The Vendor or vendor assigned dealer shall not invoice for partial shipments unless agreed to in writing in advance by TIPS or the TIPS Member.

### **Payments**

The TIPS Member will make payments directly to the Vendor or vendor assigned dealer as agreed by the TIPS Member.

### **Pricing**

The Vendor agrees to provide pricing to TIPS and TIPS Member entities that is at least equal to the lowest pricing available to like cooperative purchasing customers in like situations and the pricing shall remain so throughout the duration of the Agreement.

The Vendor agrees to promptly and proportionally lower the cost of any product purchased through TIPS following a reduction in the supplying manufacturer or publisher's direct cost to the Vendor. Price increases will be honored according to the terms of the solicitation. However, the Vendor shall honor previous prices for thirty (30) days after written notification to TIPS of an increase.

All pricing submitted to TIPS shall include the participation fee, as designated in the solicitation or as otherwise agreed in writing, to be remitted to TIPS by the Vendor. Vendor shall not show adding the fee to the invoice presented to TIPS Member customer. Failure to render the participation fee to TIPS shall constitute a breach of this agreement and shall be grounds for termination of this agreement and any other agreement held with TIPS.

### **Participation Fees**

Vendor or vendor assigned dealer agrees to pay TIPS on a monthly scheduled report the participation fee for all Agreement sales to TIPS Members utilizing a TIPS awarded contract. Vendor must login to the TIPS database and use the "Submission Report" section to report sales. The Vendor or vendor assigned dealers are responsible for keeping records of all sales that go through the TIPS Agreement. Failure to pay the participation fee will result in termination of Agreement. Please contact TIPS at [tips@tips-usa.com](mailto:tips@tips-usa.com) or call (866) 839-8477 if you have questions about paying fees.

## **Indemnity**

- 1. Indemnity for Personality Agreements.** Vendor agrees to indemnify and hold harmless and defend TIPS, TIPS Member(s), officers and employees, from and against all claims and suits for damages, injuries to persons (including death), property damages, losses, and expenses including court costs and attorney's fees, arising out of, or resulting from, Vendor's performance of this Agreement or sales made to TIPS Members under this agreement, including all such causes of action based upon common, constitutional, or statutory law, or based in whole or in part, upon allegations of negligent or intentional acts on the part of the Vendor, its officers, employees, agents, subcontractors, licensees, invitees, unless such claims are based in whole upon the negligent acts or omissions of the TIPS, TIPS Member(s), officers, employees, or agents. If based in part upon the negligent acts or omissions of the TIPS, TIPS Member(s), officers, employees, or agents, Vendor shall be responsible for their proportional share of the claim.
- 2. Indemnity for Performance Agreements.** The Vendor agrees to indemnify and hold harmless and defend TIPS, TIPS Member(s), officers and employees from and against all claims and suits for damages, injuries to persons (including death), property damages, losses, and expenses including court costs and attorney's fees, arising out of, or resulting from, Vendor's work under this Agreement, including all such causes of action based upon common, constitutional, or statutory law, or based in whole or in part, upon allegations of negligent or intentional acts on the part of the Vendor, its officers, employees, agents, subcontractors, licensees, or invitees, unless such claims are based in whole upon the negligent acts or omissions of the TIPS, TIPS Member(s), officers, employees, or agents. If based in part upon the negligent acts or omissions of the TIPS, TIPS Member(s), officers, employees, or agents, Vendor shall be responsible for their proportional share of the claim.

## **State of Texas Franchise Tax**

By signature hereon, the bidder hereby certifies that he/she is not currently delinquent in the payment of any franchise taxes owed the State of Texas under Chapter 171, Tax Code.

## **Miscellaneous**

Nothing in the Agreement or in any other communication between TIPS and the Vendor may be construed as a guarantee that TIPS Members will submit any orders at any time. TIPS reserves the right to request additional proposals for items already on Agreement at any time.

## **Purchase Order Pricing/Product Deviation**

If a deviation of agreed pricing/product on a purchase order from a TIPS Member pursuant to this Agreement occurs, TIPS shall be notified within 48 hours of receipt of order.

### **Termination for Convenience**

TIPS reserves the right to terminate this agreement for cause or no cause for convenience with a thirty-day written notice. Termination for convenience is required under 2 CFR part 200. All purchase orders presented to the Vendor by a TIPS Member prior to the actual termination of this agreement shall be honored at the option of the TIPS Member.

### **TIPS Member Purchasing Procedures**

Purchase orders or their equal are issued by participating TIPS Member to the awarded vendor indicating on the PO "TIPS Agreement Number". Order is emailed to TIPS at tipspo@tips-usa.com.

- Awarded vendor delivers goods/services directly to the participating Member.
- Awarded vendor invoices the participating TIPS Member directly.
- Awarded vendor receives payment directly from the participating Member.
- Awarded vendor reports sales monthly to TIPS (unless prior arrangements have been made with TIPS to report otherwise).

### **Supplemental Agreements**

The TIPS Member and awarded vendor may enter into a separate supplemental agreement to further define the level of service requirements over and above the minimum defined in this Agreement i.e. invoice requirements, ordering requirements, specialized delivery, etc. Any supplemental agreement developed as a result of this Agreement is exclusively between the participating entity and awarded vendor. TIPS, its agents, TIPS Members and employees shall not be made party to any claim for breach of such agreement.

#### **INDEMNITY UNDER A SUPPLEMENTAL AGREEMENT:**

**ANY SUPPLEMENTAL AGREEMENT BETWEEN THE TIPS OR A TIPS MEMBER AND THE VENDOR THAT REQUIRES TIPS OR THE TIPS MEMBER TO INDEMNIFY ANY OTHER PARTY, EXCEPT TO THE EXTENT PERMITTED BY THE APPLICABLE CONSTITUTION, LAWS OR REGULATIONS OF THE JURISDICTION OF THE LOCATION OF THE TIPS MEMBER OR THE LOCATION OF THE PERFORMANCE OF THE CONTRACT UNDER THIS AGREEMENT, IS NOT PERMITTED UNDER THIS AGREEMENT AND RENDERS THE INDEMNITY REQUIREMENT NULL AND VOID AS IT APPLIES TO TIPS OR THE TIPS MEMBER'S RESPONSIBILITY TO INDEMNIFY ANY PARTY.**

### **Licenses**

Awarded vendor shall maintain, in current status, all federal, state and local licenses, bonds and permits required for the operation of the business conducted by awarded vendor. Awarded vendor shall remain fully informed of and in compliance with all ordinances and regulations pertaining to the lawful provision of services under the Agreement. TIPS reserves the right to stop work and/or cancel Agreement of any awarded vendor whose license(s) expire, lapse, are suspended or terminated.



### **Novation**

If awarded vendor sells or transfers all assets or the entire portion of the assets used to perform this Agreement, a successor in interest must guarantee to perform all obligations under this Agreement. TIPS reserves the right to accept or reject assignment of this agreement. A simple change of name agreement will not change the Agreement obligations of awarded vendor.

### **Site Requirements (Only when applicable to service or job)**

**Cleanup:** Awarded vendor shall clean up and remove all debris and rubbish resulting from their work as required or directed by TIPS Member. Upon completion of work, the premises shall be left in good repair and an orderly, neat, clean and unobstructed condition.

**Preparation:** Awarded vendor shall not begin a project for which TIPS Member has not prepared the site, unless awarded vendor does the preparation work at no cost, or until TIPS Member includes the cost of site preparation in a purchase order.

Site preparation includes, but is not limited to: moving furniture, installing wiring for networks or power, and similar pre-installation requirements.

**Registered sex offender restrictions:** For work to be performed at schools, awarded vendor agrees that no employee of a sub-contractor who has been adjudicated to be a registered sex offender will perform work at any time when students are or reasonably expected to be present. Awarded vendor agrees that a violation of this condition shall be considered a material breach and may result in the cancellation of the purchase order at the TIPS Member's discretion. Awarded vendor must identify any additional costs associated with compliance of this term. If no costs are specified, compliance with this term will be provided at no additional charge.

**Safety measures:** Awarded vendor shall take all reasonable precautions for the safety of employees on the worksite, and shall erect and properly maintain all necessary safeguards for protection of workers and the public. Awarded vendor shall post warning signs against all hazards created by the operation and work in progress. Proper precautions shall be taken pursuant to state law and standard practices to protect workers, general public and existing structures from injury or damage.

### **Smoking**

Persons working under Agreement shall adhere to local smoking policies. Smoking will only be permitted in posted areas or off premises.

### **Invoices**

The awarded vendor shall submit invoices to the TIPS Member clearly stating "Per TIPS Agreement". The shipment tracking number or other applicable pertinent information for verification shall be made available upon request.

## **Marketing**

Awarded vendor agrees to allow TIPS to use their name and logo within the TIPS website, marketing materials and advertisement. Any use of TIPS name and logo or any form of publicity, inclusive of press release, regarding this Agreement by awarded vendor must have prior approval from TIPS and approval of which, shall not be unreasonably withheld by TIPS.

## **Survival Clause**

All applicable software license agreements, warranties or service agreements that were entered into between Vendor and Customer under the terms and conditions of the Agreement shall survive the expiration or termination of the Agreement. All Orders, Purchase Orders issued or contracts executed by TIPS or a TIPS Member and accepted by the Vendor prior to the expiration or termination of this agreement, shall survive expiration or termination of the Agreement, subject to previously agreed terms and conditions agreed by the parties or as otherwise specified herein relating to termination of this agreement.

## **Legal obligations**

It is the responding vendor's responsibility to be aware of and comply with all local, state and federal laws governing the sale of products/services identified in this RFP and any awarded Agreement thereof. Applicable laws and regulations must be followed even if not specifically identified herein.

## **Audit rights**

Awarded Vendor shall, at their sole expense, maintain appropriate due diligence of all purchases made by TIPS Member that utilizes this Agreement. TIPS and Region 8 ESC each reserve the right to audit the accounting for a period of three (3) years from the time such purchases are made. This audit right shall survive termination of this Agreement for a period of three (3) years from the effective date of termination. TIPS shall have authority to conduct random audits of Awarded Vendor's pricing that is offered to TIPS Members. Notwithstanding the foregoing, in the event that TIPS is made aware of any pricing being offered to eligible entities that is materially inconsistent with the pricing under this agreement, TIPS shall have the ability to conduct the audit internally or may engage a third-party auditing firm. In the event of an audit, the requested materials shall be provided in the format and at the location designated by Region 8 ESC or TIPS. TIPS shall bear the cost of such audit requested by TIPS, but all documents maintained by the vendor shall be produced and made available to TIPS or its agents at no cost.

## **Force Majeure**

If by reason of Force Majeure, either party hereto shall be rendered unable wholly or in part to carry out its obligations under this Agreement then such party shall give notice and fully particulars of Force Majeure in writing to the other party within a reasonable time after occurrence of the event or cause relied upon, and the obligation of the party giving such notice, so far as it is affected by such Force Majeure, shall be suspended during the continuance of the



inability then claimed, except as hereinafter provided, but for no longer period, and such party shall endeavor to remove or overcome such inability with all reasonable dispatch.

**Acceptance of work by TIPS Member**

When a Vendor performs services for a TIPS Member, the TIPS Member will inspect the work for acceptance under the scope and terms in the PO. The TIPS Member will request any corrective actions that are required. Upon completion of these actions and not before, the TIPS Member will be obligated to compensate the Vendor as agreed.

**Support Requirements**

If there is a dispute between the awarded vendor and TIPS Member, TIPS or its representatives will assist in conflict resolution or third party (mandatory mediation), if requested by either party. TIPS, or its representatives, reserves the right to inspect any project and audit the awarded vendors TIPS project files, documentation and correspondence.

**Incorporation of Solicitation**

The TIPS Solicitation, Request for Proposals, Request for Qualifications or the Request for Competitive Sealed Proposals solicitation and all associated documents and forms made part of the solicitation process, including any addenda, that resulted in the execution of this agreement are hereby incorporated by reference into this agreement as if copied verbatim.

See next page

## Special Terms and Conditions

It is the intent of TIPS to Agreement with a reliable, high performance vendor to supply products and services to government and educational agencies. It is the experience of TIPS that the following procedures provide TIPS, the Vendor, and the participating agency the necessary support to facilitate a mutually beneficial relationship. The specific procedures will be negotiated with the successful vendor.

- **Agreements:** All orders made by TIPS Members to the awarded vendor must be emailed to TIPS at tipspo@tips-usa.com. Should a TIPS Member send an order direct to vendor, it is the vendor's responsibility to forward the order to TIPS at the email above within three (3) business days and confirm its receipt with TIPS.
  - **Promotion of Agreement:** It is agreed that Vendor will encourage all eligible entities to purchase from the TIPS Program. Encouraging entities to purchase directly from the Vendor and not through TIPS Agreement is a breach of this agreement terms and conditions and will result in termination and rescission of this agreement and removal of the Vendor from the TIPS Program.
  - **Daily Order Confirmation:** All Agreement purchase orders will be approved daily by TIPS and sent to vendor. The vendor must confirm receipt of orders to the TIPS Member (customer) within two (2) business days.
  - **Vendor custom website for TIPS:** If Vendor is hosting a custom TIPS Agreement catalog website, then any updated pricing must be posted by 1<sup>st</sup> of each month. Any increase in a "catalog" price, as defined herein, is not effective until it is published in the vendor's "catalog" as defined herein.
  - **Back Ordered Products:** If product is not expected to ship within 3 business days, customer is to be notified within 24 hours of order receipt and appropriate action taken based on customer request.
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**Term of Agreement is one year with renewal options for up to two additional years as provided in the solicitation.**

**Page 11 of 11 will be the TIPS Vendor Agreement Signature Page**

# TIPS Vendor Agreement Signature Form

RFP 170702 Indoor Air Quality Equipment and Services

Company Name Tillman & Associates, Inc.

Address 4525 Brittmoore Rd.

City Houston State TX Zip 77041

Phone 713-983-7999 Fax 713-983-8488

Email of Authorized Representative Gail@Tillman.us.com

Name of Authorized Representative Gail Traylor

Title Sales

Signature of Authorized Representative [Signature]

Date 8/23/17

TIPS Authorized Representative Name Meredith Barton

Title Vice-President of Operations

TIPS Authorized Representative Signature [Signature]

Approved by ESC Region 8 [Signature]

Date 9/24/17

# The Interlocal Purchasing System (TIPS Cooperative) Supplier Response

Bid Information		Contact Information		Ship to Information
Bid Creator	Rick Powell General Counsel/Procurement Compliance Officer	Address	Region 8 Education Service Center 4845 US Highway 271 North Pittsburg, TX 75686	Address
Email	rick.powell@tips-usa.com	Contact	Contracts Support	Contact
Phone	(903) 575-2689	Department		Department
Fax		Building		Building
Bid Number	170702	Floor/Room		Floor/Room
Title	Indoor Air Quality Equipment and Services	Telephone	(866) 839-8477	Telephone
Bid Type	RFP	Fax	(866) 839-8472	Fax
Issue Date	7/6/2017 08:00 AM (CT)	Email	bids@tips-usa.com	Email
Close Date	8/25/2017 03:00:00 PM (CT)			

## Supplier Information

Company Tillman & Associates, Inc.  
 Address 4525 Brittmoore Road  
  
 Houston, TX 77041  
 Contact Chip Holdridge  
 Department  
 Building  
 Floor/Room  
 Telephone (713) 983-7999  
 Fax  
 Email chip@tillman.us.com  
 Submitted 8/24/2017 01:48:27 PM (CT)  
 Total \$0.00

By submitting your response, you certify that you are authorized to represent and bind your company.

Signature Gail Traylor

Email Gail@tillman.us.com

## Supplier Notes

## Bid Notes

## Bid Activities

## Bid Messages

**Bid Attributes**

Please review the following and respond where necessary

#	Name	Note	Response
1	Yes - No	Disadvantaged/Minority/Women Business Enterprise - D/M/WBE (Required by some participating governmental entities) Vendor certifies that their firm is a D/M/WBE? Vendor must upload proof of certification to the "Response Attachments" D/M/WBE CERTIFICATES section.	No
2	Yes - No	Historically Underutilized Business - HUB (Required by some participating governmental entities) Vendor certifies that their firm is a HUB as defined by the State of Texas at <a href="https://comptroller.texas.gov/purchasing/vendor/hub/">https://comptroller.texas.gov/purchasing/vendor/hub/</a> or in a HUBZone as defined by the US Small Business Administration at <a href="https://www.sba.gov/offices/headquarters/ohp">https://www.sba.gov/offices/headquarters/ohp</a> Proof of one or both may be submitted. Vendor must upload proof of certification to the "Response Attachments" HUB CERTIFICATES section.	No
3	Yes - No	The Vendor can provide services and/or products to all 50 US States?	No
4	States Served:	If answer is NO to question #3, please list which states can be served. (Example: AR, OK, TX)	We can sell and install Steril-Aire UV lights in Houston, TX and the surrounding area
5	Company and/or Product Description:	This information will appear on the TIPS website in the company profile section, if awarded a TIPS contract. (Limit 750 characters.)	We sell and install Steril-Aire ultra violet lights that are used to kill mold and mildew that forms on a cooling coil inside an air handling unit or fan coil unit for the best IAQ treatment for the units. These lights are designed to be installed on the leaving air side of the cooling cold where the mold and mildew starts until it eventually spreads into the duct work. Once the UV lights are installed they will eliminate the mold and mildew and it will no longer spread to the duct work and what is in the duct work will die because no new mold spore will fly down the duct and continue to grow. You will no longer have to clean the coil or duct work with UV lights installed.
6	Primary Contact Name	Primary Contact Name	Gail Traylor
7	Primary Contact Title	Primary Contact Title	Outside Sales
8	Primary Contact Email	Primary Contact Email	Gail@tillman.us.com
9	Primary Contact Phone	Enter 10 digit phone number. (No dashes or extensions) Example: 8668398477	713-983-7999
10	Primary Contact Fax	Enter 10 digit phone number. (No dashes or extensions) Example: 8668398477	713-983-8488
11	Primary Contact Mobile	Enter 10 digit phone number. (No dashes or extensions) Example: 8668398477	713-898-7584
12	Secondary Contact Name	Secondary Contact Name	Trent Peterson
13	Secondary Contact Title	Secondary Contact Title	President / Outside Sales

14	Secondary Contact Email	Secondary Contact Email	trent@tillman.us.com
15	Secondary Contact Phone	Enter 10 digit phone number. (No dashes or extensions) Example: 8668398477	713-983-7999
16	Secondary Contact Fax	Enter 10 digit phone number. (No dashes or extensions) Example: 8668398477	713-983-8488
17	Secondary Contact Mobile	Enter 10 digit phone number. (No dashes or extensions) Example: 8668398477	713-208-7999
18	Admin Fee Contact Name	Admin Fee Contact Name. This person is responsible for paying the admin fee to TIPS.	Chip Holdridge
19	Admin Fee Contact Email	Admin Fee Contact Email	chip@wtd.net
20	Admin Fee Contact Phone	Enter 10 digit phone number. (No dashes or extensions) Example: 8668398477	713-983-7999
21	Purchase Order Contact Name	Purchase Order Contact Name. This person is responsible for receiving Purchase Orders from TIPS.	Gail Traylor
22	Purchase Order Contact Email	Purchase Order Contact Email	Gail@tillman.us.com
23	Purchase Order Contact Phone	Enter 10 digit phone number. (No dashes or extensions) Example: 8668398477	713-983-7999
24	Company Website	Company Website (Format - www.company.com)	Tillmanandassociates.com
25	Federal ID Number:	Federal ID Number also known as the Employer Identification Number. (Format - 12-3456789)	74-2208980
26	Primary Address	Primary Address	4525 Brittmoore Rd.
27	Primary Address City	Primary Address City	Houston
28	Primary Address State	Primary Address State (2 Digit Abbreviation)	TX
29	Primary Address Zip	Primary Address Zip	77041
30	Search Words:	Please list search words to be posted in the TIPS database about your company that TIPS website users might search. Words may be product names, manufacturers, or other words associated with the category of award. YOU MAY NOT LIST NON-CATEGORY ITEMS. (Limit 500 words) (Format: product, paper, construction, manufacturer name, etc.)	Steril-Aire, UV lights, Ultra-Violet lights, Indoor air quality equipment and services, IAQ solutions, killing mold in air handling units. Coil Cleaning
31	Yes - No	Most of our members receive Federal Government grants and they make up a significant portion of their budgets. The members need to know if your company is willing to sell to them when they spend federal budget funds on their purchase. There are attributes that follow that are provisions from the federal regulations in 2 CFR part 200. Your answers will determine if your award will be designated as Federal or Education Department General Administrative Regulations (EDGAR)compliant. Is it your intent to be able to sell to our members regardless of the fund source, whether it be local, state or federal?	No



32	Yes - No	Certification of Residency (Required by the State of Texas) The vendor's ultimate parent company or majority owner:	Yes
		(A) has its principal place of business in Texas;	
		OR	
		(B) employs at least 500 persons in Texas?	
33	Company Residence (City)	Vendor's principal place of business is in the city of?	Houston
34	Company Residence (State)	Vendor's principal place of business is in the state of?	Texas
35	Felony Conviction Notice:	(Required by the State of Texas) My firm is, as outlined on PAGE 5 in the Instructions to Bidders document: (Questions 36 - 37) Statutory citation covering notification of criminal history of contractor is found in the Texas Education Code #44.034. Following is an example of a felony conviction notice: State of Texas Legislative Senate Bill No. 1, Section 44.034, Notification of Criminal History, Subsection (a), states "a person or business entity that enters into a contract with a school district or ESC 8/TIPS must give advance notice to the district or ESC 8/TIPS if the person or an owner or operator of the business entity has been convicted of a felony. The notice must include a general description of the conduct resulting in the conviction of a felony." Subsection (b) states "a school district may terminate a contract with a person or business entity if the district determines that the person or business entity failed to give notice as required by Subsection (a) or misrepresented the conduct resulting in the conviction. The district must compensate the person or business entity for services performed before the termination of the contract."	(No Response Required)
36	Yes - No	A publicly held corporation; therefore, this reporting requirement is not applicable?	No
37	Yes - No	Is owned or operated by individual(s) who has/have been convicted of a felony?	No
38	If your firm is owned or operated by the following individual(s) who has/have been convicted of a felony:	Please provide details of the conviction. This is not necessarily a disqualifying factor and the details of the conviction determines the eligibility. Providing false or misleading information about the conviction is illegal.	
39	Pricing Information:	Pricing information section. (Questions 39 - 43)	(No Response Required)
40	Discount Offered	What is the MINIMUM percentage discount off of any item or service you offer to TIPS Members that is in your regular catalog (as defined in the RFP document), website, store or shelf pricing? This is a ceiling on your pricing and not a floor because, in order to be more competitive in the individual circumstance, you may offer a larger discount depending on the items or services purchased and the quantity at time of sale. Must answer with a number between 0% and 100%.	-1%

41	TIPS administration fee	By submitting a proposal, I agree that all pricing submitted to TIPS shall include the participation fee, as designated in the solicitation or as otherwise agreed in writing and shall be remitted to TIPS by the Vendor as agreed in the Vendor agreement. I agree that the fee shall not and will not be added by the vendor as a separate line item on a TIPS member invoice, quote, proposal or any other written communications with the TIPS member.	(No Response Required)
42	Yes - No	Vendor agrees to remit to TIPS the required administration fee? TIPS/ESC Region 8 is required by Texas Government Code § 791 to be compensated for its work and thus, failure to agree shall render your response void and it will not be considered.	Yes
43	Yes - No	Do you offer additional discounts to TIPS members for large order quantities or large scope of work?	No
44	Start Time	Average start time after receipt of customer order is ____ working days?	20
45	Years Experience	Company years experience in this category?	22
46	Resellers:	Does the vendor have resellers that it will name under this contract? Resellers are defined as other companies that sell your products under an agreement with you, the awarded vendor of TIPS. EXAMPLE: Walmart is a reseller of Samsung Electronics. If Samsung were a TIPS awarded vendor, then Samsung would list Walmart as a reseller. (If applicable, vendor should download the Reseller/Dealers spreadsheet from the Attachments section, fill out the form and submit the document in the "Response Attachments" RESELLERS section.	No
47	Prices are guaranteed for?	Vendor agrees to honor the pricing discount off regular catalog (as defined in the RFP document), website, store or shelf pricing for the term of the award?	YES
48	Right of Refusal	Does the proposing vendor wish to reserve the right not to perform under the awarded agreement with a TIPS member at vendor's discretion?	Yes
49	NON-COLLUSIVE BIDDING CERTIFICATE	By submission of this bid or proposal, the Bidder certifies that:  1) This bid or proposal has been independently arrived at without collusion with any other Bidder or with any Competitor; 2) This bid or proposal has not been knowingly disclosed and will not be knowingly disclosed, prior to the opening of bids, or proposals for this project, to any other Bidder, Competitor or potential competitor: 3) No attempt has been or will be made to induce any other person, partnership or corporation to submit or not to submit a bid or proposal; 4) The person signing this bid or proposal certifies that he has fully informed himself regarding the accuracy of the statements contained in this certification, and under the penalties being applicable to the Bidder as well as to the person signing in its behalf. Not a negotiable term. Failure to agree will render your proposal non-responsive and it will not be considered.	(No Response Required)

- 50 CONFLICT OF INTEREST QUESTIONNAIRE - FORM CIQ      If you have a conflict of interest as described in this form or the Local Government Code Chapter 176, cited therein- you are required to complete and file with TIPS, Richard Powell, 4845 US Highway 271 North, Pittsburg, Texas 75686      No
- You may find the Blank CIQ form on our website at:
- Copy and Paste the following link into a new browser or tab:  
<https://www.tips-usa.com/assets/documents/docs/CIQ.pdf>
- Do you have any conflicts under this statutory requirement?
- 51 Filing of Form CIQ      If yes (above), have you filed a form CIQ as directed here?
- 52 Regulatory Standing      I certify to TIPS for the proposal attached that my company is in good standing with all governmental agencies Federal or state that regulate any part of our business operations. If not, please explain in the next attribute question.      Yes
- 53 Regulatory Standing      Regulatory Standing explanation of no answer on previous question.
- 54 Antitrust Certification Statements (Tex. Government Code § 2155.005)      By submission of this bid or proposal, the Bidder certifies that:      (No Response Required)
- I affirm under penalty of perjury of the laws of the State of Texas that:
- (1) I am duly authorized to execute this contract on my own behalf or on behalf of the company, corporation, firm, partnership or individual (Company) listed below;
  - (2) In connection with this bid, neither I nor any representative of the Company has violated any provision of the Texas Free Enterprise and Antitrust Act, Tex. Bus. & Comm. Code Chapter 15;
  - (3) In connection with this bid, neither I nor any representative of the Company has violated any federal antitrust law;
  - (4) Neither I nor any representative of the Company has directly or indirectly communicated any of the contents of this bid to a competitor of the Company or any other company, corporation, firm, partnership or individual engaged in the same line of business as the Company.

## Instructions for Certification:

(No Response Required)

1. By agreeing to the Attribute question #56, the vendor and prospective lower tier participant is providing the certification set out herein in accordance with these instructions.
2. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification in addition to other remedies available to the federal government, the department or agency with which this transaction originated may pursue available remedies, including suspension and / or debarment.
3. The prospective lower tier participant shall provide immediate written notice to the person to which this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.
4. The terms "covered transaction," "debarred," "suspended," "ineligible," "lower tier covered transaction," "participants," "person," "primary covered transaction," "principal," "proposal" and "voluntarily excluded," as used in this clause, have the meanings set out in the Definitions and Coverage sections of rules implementing Executive Order 12549. You may contact the person to which this proposal is submitted for assistance in obtaining a copy of those regulations.
5. The prospective lower tier participant agrees by submitting this form that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency with which this transaction originated.
6. The prospective lower tier participant further agrees by submitting this form that it will include this clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction" without modification in all lower tier covered transactions and in all solicitations for lower tier covered transactions.
7. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that it is not debarred, suspended, ineligible or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant may decide the method and frequency by which it determines the eligibility of its principals. Each participant may, but is not required to, check the Nonprocurement List.
8. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of a participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.
9. Except for transactions authorized under paragraph 5 of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible or voluntarily excluded from participation in this transaction, in addition to other remedies available to the federal government, the department or agency with which this

transaction originated may pursue available remedies, including suspension and / or debarment.

56 Suspension or Debarment Certification

Debarment and Suspension (Executive Orders 12549 and 12689)—A contract award (see 2 CFR 180.220) must not be made to parties listed on the governmentwide exclusions in the System for Award Management (SAM), in accordance with the OMB guidelines at 2 CFR 180 that implement Executive Orders 12549 (3 CFR part 1986 Comp., p. 189) and 12689 (3 CFR part 1989 Comp., p. 235), "Debarment and Suspension." SAM Exclusions contains the names of parties debarred, suspended, or otherwise excluded by agencies, as well as parties declared ineligible under statutory or regulatory authority other than Executive Order 12549.

By submitting this offer and certifying this section, this bidder:  
Certifies that no suspension or debarment is in place, which would preclude receiving a federally funded contract as described above.

57 Non-Discrimination Statement and Certification

In accordance with Federal civil rights law, all U.S. Departments, including the U.S. Department of Agriculture (USDA) civil rights regulations and policies, the USDA, its Agencies, offices, and employees, and institutions participating in or administering USDA programs are prohibited from discriminating based on race, color, national origin, religion, sex, gender identity (including gender expression), sexual orientation, disability, age, marital status, family/parental status, income derived from a public assistance program, political beliefs, or reprisal or retaliation for prior civil rights activity, in any program or activity conducted or funded by USDA (not all bases apply to all programs). Remedies and complaint filing deadlines vary by program or incident. Persons with disabilities who require alternative means of communication for program information (e.g., Braille, large print, audiotope, American Sign Language, etc.) should contact the responsible Agency or USDA's TARGET Center at (202) 720-2600 (voice and TTY) or contact USDA through the Federal Relay Service at (800) 877-8339. Additionally, program information may be made available in languages other than English. To file a program discrimination complaint, complete the USDA Program Discrimination Complaint Form, AD-3027, found online at How to File a Program Discrimination Complaint and at any USDA office or write a letter addressed to USDA and provide in the letter all of the information requested in the form. To request a copy of the complaint form, call (866) 632-9992. Submit your completed form or letter to USDA by: (1) mail: U.S. Department of Agriculture, Office of the Assistant Secretary for Civil Rights, 1400 Independence Avenue, SW, Washington, D.C. 20250-9410; (2) fax: (202) 690-7442; or (3) email: [program.intake@usda.gov](mailto:program.intake@usda.gov). (Title VI of the Education Amendments of 1972; Section 504 of the Rehabilitation Act of 1973; the Age Discrimination Act of 1975; Title 7 CFR Parts 15, 15a, and 15b; the Americans with Disabilities Act; and FNS Instruction 113-1, Civil Rights Compliance and Enforcement – Nutrition Programs and Activities) All U.S. Departments, including the USDA are equal opportunity provider, employer, and lender.

Not a negotiable term. Failure to agree will render your

proposal non-responsive and it will not be considered. I certify that in the performance of a contract with TIPS or its members, that our company will conform to the foregoing anti-discrimination statement and comply with the cited and all other applicable laws and regulations.

58 2 CFR PART 200 Contract Provisions Explanation

Required Federal contract provisions of Federal Regulations for Contracts for contracts with ESC Region 8 and TIPS Members:

(No Response Required)

The following provisions are required to be in place and agreed if the procurement is funded in any part with federal funds.

The ESC Region 8 and TIPS Members are the subgrantee or Subrecipient by definition. Most of the provisions are located in 2 CFR PART 200 - Appendix II to Part 200—Contract Provisions for Non-Federal Entity Contracts Under Federal Awards at 2 CFR PART 200. Others are included within 2 CFR part 200 et al.

In addition to other provisions required by the Federal agency or non-Federal entity, all contracts made by the non-Federal entity under the Federal award must contain provisions covering the following, as applicable.

59 2 CFR PART 200 Contracts

Contracts for more than the simplified acquisition threshold currently set at \$150,000, which is the inflation adjusted amount determined by the Civilian Agency Acquisition Council and the Defense Acquisition Regulations Council (Councils) as authorized by 41 U.S.C. 1908, must address administrative, contractual, or legal remedies in instances where contractors violate or breach contract terms, and provide for such sanctions and penalties as appropriate. Notice: Pursuant to the above, when federal funds are expended by ESC Region 8 and TIPS Members, ESC Region 8 and TIPS Members reserves all rights and privileges under the applicable laws and regulations with respect to this procurement in the event of breach of contract by either party.  
Does vendor agree?

Yes

60 2 CFR PART 200 Termination

Termination for cause and for convenience by the grantee or subgrantee including the manner by which it will be effected and the basis for settlement. (All contracts in excess of \$10,000)  
Pursuant to the above, when federal funds are expended by ESC Region 8 and TIPS Members, ESC Region 8 and TIPS Members reserves the right to terminate any agreement in excess of \$10,000 resulting from this procurement process for cause after giving the vendor an appropriate opportunity and up to 30 days, to cure the causal breach of terms and conditions. ESC Region 8 and TIPS Members reserves the right to terminate any agreement in excess of \$10,000 resulting from this procurement process for convenience with 30 days notice in writing to the awarded vendor. The vendor would be compensated for work performed and goods procured as of the termination date if for convenience of the ESC Region 8 and TIPS Members. Any award under this procurement process is not exclusive and the ESC Region 8 and TIPS reserves the right to purchase goods and services from other vendors when it is in the best interest of the ESC Region 8 and TIPS.  
Does vendor agree?

Yes



61	2 CFR PART 200 Clean Air Act	<p>Clean Air Act (42 U.S.C. 7401-7671q.) and the Federal Water Pollution Control Act (33 U.S.C. 1251-1387), as amended—Contracts and subgrants of amounts in excess of \$150,000 must contain a provision that requires the non-Federal award to agree to comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act (42 U.S.C. 7401-7671q) and the Federal Water Pollution Control Act as amended (33 U.S.C. 1251-1387). Violations must be reported to the Federal awarding agency and the Regional Office of the Environmental Protection Agency (EPA).</p> <p>Pursuant to the Clean Air Act, et al above, when federal funds are expended by ESC Region 8 and TIPS Members, ESC Region 8 and TIPS Members requires that the proposer certify that during the term of an award by the ESC Region 8 and TIPS Members resulting from this procurement process the vendor agrees to comply with all of the above regulations, including all of the terms listed and referenced therein.</p> <p>Does vendor agree?</p>	Yes
62	2 CFR PART 200 Byrd Anti-Lobbying Amendment	<p>Byrd Anti-Lobbying Amendment (31 U.S.C. 1352)—Contractors that apply or bid for an award exceeding \$100,000 must file the required certification. Each tier certifies to the tier above that it will not and has not used Federal appropriated funds to pay any person or organization for influencing or attempting to influence an officer or employee of any agency, a member of Congress, officer or employee of Congress, or an employee of a member of Congress in connection with obtaining any Federal contract, grant or any other award covered by 31 U.S.C. 1352. Each tier must also disclose any lobbying with non-Federal funds that takes place in connection with obtaining any Federal award. Such disclosures are forwarded from tier to tier up to the non-Federal award.</p> <p>Pursuant to the above, when federal funds are expended by ESC Region 8 and TIPS Members, ESC Region 8 and TIPS Members requires the proposer certify that during the term and during the life of any contract with ESC Region 8 and TIPS Members resulting from this procurement process the vendor certifies to the terms included or referenced herein.</p> <p>Does vendor agree?</p>	Yes
63	2 CFR PART 200 Federal Rule	<p>Compliance with all applicable standards, orders, or requirements issued under section 306 of the Clean Air Act (42 U.S.C. 1857(h)), section 508 of the Clean Water Act (33 U.S.C. 1368), Executive Order 11738, and Environmental Protection Agency regulations (40 CFR part 15). (Contracts, subcontracts, and subgrants of amounts in excess of \$100,000)</p> <p>Pursuant to the above, when federal funds are expended by ESC Region 8 and TIPS Members, ESC Region 8 and TIPS Members requires the proposer certify that in performance of the contracts, subcontracts, and subgrants of amounts in excess of \$100,000, the vendor will be in compliance with all applicable standards, orders, or requirements issued under section 306 of the Clean Air Act (42 U.S.C. 1857(h)), section 508 of the Clean Water Act (33 U.S.C. 1368), Executive Order 11738, and Environmental Protection Agency regulations (40 CFR part 15).</p> <p>Does vendor certify that it is in compliance with the Clean Air Act?</p>	Yes

64	2 CFR PART 200 Procurement of Recovered Materials	<p>A non-Federal entity that is a state agency or agency of a political subdivision of a state and its contractors must comply with section 6002 of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act. The requirements of Section 6002 include procuring only items designated in guidelines of the Environmental Protection Agency (EPA) at 40 CFR part 247 that contain the highest percentage of recovered materials practicable, consistent with</p> <p>maintaining a satisfactory level of competition, where the purchase price of the item exceeds \$10,000 or the value of the quantity acquired during the preceding fiscal year exceeded \$10,000; procuring solid waste management services in a manner that maximizes energy and resource recovery; and establishing an affirmative procurement program for procurement of recovered materials identified in the EPA guidelines.</p> <p>Does vendor certify that it is in compliance with the Solid Waste Disposal Act as described above?</p>	Yes
65	Indemnification	<p>The ESC Region 8 and TIPS is a Texas Political Subdivision and a local governmental entity; therefore, is prohibited from</p> <p>indemnifying third parties pursuant to the Texas Constitution (Article 3, Section 52) except as specifically provided by law or as</p> <p>ordered by a court of competent jurisdiction. A provision in a contract to indemnify or hold a party harmless is a promise to pay for</p> <p>any expenses the indemnified party incurs, if a specified event occurs, such as breaching the terms of the contract or negligently</p> <p>performing duties under the contract. Article III, Section 49 of the Texas Constitution states that "no debt shall be created by or on</p> <p>behalf of the State ... " The Attorney General has counseled that a contractually imposed obligation of indemnity creates a "debt" in</p> <p>the constitutional sense. Tex. Att'y Gen. Op. No. MW-475 (1982). Contract clauses which require the System or institutions to</p> <p>indemnify must be deleted or qualified with "to the extent permitted by the Constitution and Laws of the State of Texas." Liquidated</p> <p>damages, attorney's fees, waiver of vendor's liability, and waiver of statutes of limitations clauses should also be deleted or qualified</p> <p>with "to the extent permitted by the Constitution and laws of State of Texas."</p> <p>Not a negotiable term. Failure to agree will render your proposal non-responsive and it will not be considered. Do you agree</p> <p>to these terms?</p>	Yes

66 Remedies	<p>The parties shall be entitled to exercise any right or remedy available to it either at law or in equity, subject to the choice of law, venue and service of process clauses limitations agreed herein. Nothing in this agreement shall commit the TIPS to an arbitration resolution of any disagreement under any circumstances. Any Claim arising out of or related to the Contract, except for those specifically waived under the terms of the Contract, may, after denial of the Board of Directors, be subject to mediation at the request of either party. Any issues not resolved hereunder must be referred to non-binding mediation to be conducted by a mutually agreed upon mediator as a prerequisite to the filing of any lawsuit over such issue(s). The parties shall share the mediator's fee and any associated filing fee equally. Mediation shall be held in Camp or Titus County, Texas. Agreements reached in mediation shall be reduced to writing, and will be subject to the approval by the District's Board of Directors, signed by the Parties if approved by the Board of Directors, and, if signed, shall thereafter be enforceable as provided by the laws of the State of Texas.</p> <p>Do you agree to these terms?</p>	Yes, I Agree
67 Remedies Explanation of No Answer		
68 Choice of Law	<p>This agreement and any addenda or other additions and all contracts or awards resulting from this procurement process, however described, shall be governed by, construed and enforced in accordance with the laws of the State of Texas, regardless of any conflict of laws principles.</p> <p>Not a negotiable term. Failure to agree will render your proposal non-responsive and it will not be considered. Do you agree to these terms?</p>	Yes
69 Jurisdiction and Service of Process	<p>Any Proceeding arising out of or relating to this procurement process or any contract issued by TIPS resulting from or any contemplated transaction shall be brought in a court of competent jurisdiction in Camp County, Texas and each of the parties irrevocably submits to the exclusive jurisdiction of said court in any such proceeding, waives any objection it may now or hereafter have to venue or to convenience of forum, agrees that all claims in respect of the Proceeding shall be heard and determined only in any such court, and agrees not to bring any proceeding arising out of or relating to this procurement process or any contract resulting from or any contemplated transaction in any other court. The parties agree that either or both of them may file a copy of this paragraph with any court as written evidence of the knowing, voluntary and freely bargained for agreement between the parties irrevocably to waive any objections to venue or to convenience of forum. Process in any Proceeding referred to in the first sentence of this Section may be served on any party anywhere in the world. Venue clauses in contracts with TIPS members may be determined by the parties.</p>	Yes

Not a negotiable term. Failure to agree will render your proposal non-responsive and it will not be considered. Do you agree to these terms?

- 70 Alternative Dispute Resolution Yes, I Agree  
Prior to filing of litigation, the parties may select non-binding mediation as a method of conflict resolution for issues arising out of or relating to this procurement process or any contract resulting from or any contemplated transaction. The parties agree that if nonbinding mediation is chosen as a resolution process, the parties must agree to the chosen mediator(s) and that all mediation venue shall be at a location in Camp or Titus, County, Texas agreed by the parties. The parties agree to share equally the cost of the mediation process and venue cost.  
Do you agree to these terms?
- 71 Alternative Dispute Resolution Explanation of No Answer
- 72 Infringement(s) Yes, I Agree  
The successful vendor will be expected to indemnify and hold harmless the TIPS and its employees, officers, agents, representatives, contractors, assignees and designees from any and all third party claims and judgments involving infringement of patent, copyright, trade secrets, trade or service marks, and any other intellectual or intangible property rights attributed to or claims based on the Vendor's proposal or Vendor's performance of contracts awarded and approved.  
Do you agree to these terms?
- 73 Infringement(s) Explanation of No Answer
- 74 Acts or Omissions Yes, I Agree  
The successful vendor will be expected to indemnify and hold harmless the TIPS, its officers, employees, agents, representatives, contractors, assignees and designees from and against any and all liability, actions, claims, demands or suits, and all related costs, attorney's fees and expenses arising out of, or resulting from any acts or omissions of the vendor or its agents, employees, subcontractors, or suppliers in the execution or performance of any agreements ultimately made by TIPS and the vendor.  
Do you agree to these terms?
- 75 Acts or Omissions Explanation of No Answer
- 76 Contract Governance Yes  
Any contract made or entered into by the TIPS is subject to and is to be governed by Section 271.151 et seq, Tex Loc Gov't Code. Otherwise, TIPS does not waive its governmental immunities from suit or liability except to the extent expressly waived by other applicable laws in clear and unambiguous language.

77 Payment Terms and Funding Out Clause

Payment Terms:  
TIPS or TIPS members shall not be liable for interest or late payment fees on past due balances at a rate higher than permitted by the laws or regulations of the jurisdiction of the TIPS Member.

Yes

Funding Out Clause:  
Vendor agrees to abide by the laws and regulations, including Texas Local Government Code § 271.903, or any statutory or regulatory limitations of the jurisdiction of any TIPS Member which governs contracts entered into by the Vendor and TIPS or a TIPS Member that requires all contracts approved by TIPS or a TIPS Member are subject to the budgeting and appropriation of currently available funds by the entity or its governing body.  
See statute(s) for specifics or consult your legal counsel. Not a negotiable term. Failure to agree will render your proposal non-responsive and it will not be considered.  
Do you agree to these terms?

78 Insurance and Fingerprint Requirements Information

Insurance  
If applicable and your staff will be on TIPS member premises for delivery, training or installation etc. and/or with an automobile, you must carry automobile insurance as required by law. You may be asked to provide proof of insurance.

Fingerprint  
It is possible that a vendor may be subject to Chapter 22 of the Texas Education Code. The Texas Education Code, Chapter 22, Section 22.0834. Statutory language may be found at: <http://www.statutes.legis.state.tx.us/>  
If the vendor has staff that meet both of these criterion:  
(1) will have continuing duties related to the contracted services; and  
(2) has or will have direct contact with students  
Then you have "covered" employees for purposes of completing the attached form.  
TIPS recommends all vendors consult their legal counsel for guidance in compliance with this law. If you have questions on how to comply, see below. If you have questions on compliance with this code section, contact the Texas Department of Public Safety Non-Criminal Justice Unit, Access and Dissemination Bureau, FAST-FACT at [NCJU@txdps.state.tx.us](mailto:NCJU@txdps.state.tx.us) and you should send an email identifying you as a contractor to a Texas Independent School District or ESC Region 8 and TIPS. Texas DPS phone number is (512) 424-2474.  
See form in the next attribute to complete entitled: Texas Education Code Chapter 22 Contractor Certification for Contractor Employees

(No Response Required)

79 Texas Education Code Chapter 22 Contractor Certification for Contractor Employees

Introduction: Texas Education Code Chapter 22 requires entities that contract with school districts to provide services to obtain criminal history record information regarding covered employees. Contractors must certify to the district that they have complied. Covered employees with disqualifying criminal histories are prohibited from serving at a school district.

Definitions: Covered employees: Employees of a contractor or subcontractor who have or will have continuing duties related to the service to be performed at the District and have or will have direct contact with students. The District will be the final arbiter of what constitutes direct contact with students. Disqualifying criminal history: Any conviction or other criminal history information designated by the District, or one of the following offenses, if at the time of the offense, the victim was under 18 or enrolled in a public school:

(a) a felony offense under Title 5, Texas Penal Code; (b) an offense for which a defendant is required to register as a sex offender under Chapter 62, Texas Code of Criminal Procedure; or (c) an equivalent offense under federal law or the laws of another state.

I certify that:

NONE (Section A) of the employees of Contractor and any subcontractors are covered employees, as defined above. If this box is checked, I further certify that Contractor has taken precautions or imposed conditions to ensure that the employees of Contractor and any subcontractor will not become covered employees. Contractor will maintain these precautions or conditions throughout the time the contracted services are provided.

OR

SOME (Section B) or all of the employees of Contractor and any subcontractor are covered employees. If this box is checked, I further certify that:

(1) Contractor has obtained all required criminal history record information regarding its covered employees. None of the covered employees has a disqualifying criminal history.

(2) If Contractor receives information that a covered employee subsequently has a reported criminal history, Contractor will immediately remove the covered employee from contract duties and notify the District in writing within 3 business days.

(3) Upon request, Contractor will provide the District with the name and any other requested information of covered employees so that the District may obtain criminal history record information on the covered employees.

(4) If the District objects to the assignment of a covered employee on the basis of the covered employee's criminal history record information, Contractor agrees to discontinue using that covered employee to provide services at the District.

Noncompliance or misrepresentation regarding this certification may be grounds for contract termination.

Some

80 Solicitation Deviation/Compliance

Does the vendor agree with the General Conditions Standard Terms and Conditions or Item Specifications listed in this proposal invitation?

Yes



- |    |  |   |     |
|----|--|---|-----|
| 81 | Solicitation Exceptions/Deviations Explanation | <p>If the bidder intends to deviate from the General Conditions Standard Terms and Conditions or Item Specifications listed in this proposal invitation, all such deviations must be listed on this attribute, with complete and detailed conditions and information included or attached.</p> <p>TIPS will consider any deviations in its proposal award decisions, and TIPS reserves the right to accept or reject any bid based upon any deviations indicated below or in any attachments or inclusions.</p> <p>In the absence of any deviation entry on this attribute, the proposer assures TIPS of their full compliance with the Standard Terms and Conditions, Item Specifications, and all other information contained in this Solicitation.</p> |     |
| 82 | Agreement Deviation/Compliance                 | Does the vendor agree with the language in the Vendor Agreement?  | Yes |
| 83 | Agreement Exceptions/Deviations Explanation    | <p>If the proposing Vendor desires to deviate from the Vendor Agreement language, all such deviations must be listed on this attribute, with complete and detailed conditions and information included. TIPS will consider any deviations in its proposal award decisions, and TIPS reserves the right to accept or reject any proposal based upon any deviations indicated below. In the absence of any deviation entry on this attribute, the proposer assures TIPS of their full compliance with the Vendor Agreement.</p>   |     |

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Line Items

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Response Total: \$0.00

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RFP 170702 Indoor Air Quality Equipment and Services

**Certification Regarding Lobbying**

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Applicable to Grants, Subgrants, Cooperative Agreements, and Contracts Exceeding \$100,000 in Federal Funds.

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Submission of this certification is a prerequisite for making or entering into this transaction and is imposed by section 1352, Title 31, U.S. Code. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

The undersigned certifies, to the best of his or her knowledge and belief, that:

(1) No Federal appropriated funds have been paid or will be paid by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of congress, or an employee of a Member of Congress in connection with the awarding of a Federal contract, the making of a Federal grant, the making of a Federal loan, the entering into a cooperative agreement, and the extension, continuation, renewal, amendment, or modification of a Federal contract, grant, loan, or cooperative agreement.

(2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of congress, or an employee of a Member of Congress in connection with this Federal grant or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "disclosure Form to Report Lobbying," in accordance with its instructions.

(3) The undersigned shall require that the language of this certification be included in the award documents for all covered subawards exceeding \$100,000 in Federal funds at all appropriate tiers and that all subrecipients shall certify and disclose accordingly.

Tillman & Associates, Inc.

4525 Britton Rd, Houston, TX 77041  
Name/Address of Organization

Trent Peterson, President  
Name/Title of Submitting Official

Trent Peterson  
Signature

8/23/17  
Date

FELONY CONVICTION NOTICE

FOR RESPONSE TO TIPS SOLICITATION

Statutory citation covering notification of criminal history of contractor is found in the Texas Education Code #44.034. Following is an example of a felony conviction notice:

State of Texas Legislative Senate Bill No. 1, Section 44.034, Notification of Criminal History, Subsection (a), states "a person or business entity that enters into a contract with a school district must give advance notice to the district if the person or an owner or operator of the business entity has been convicted of a felony. The notice must include a general description of the conduct resulting in the conviction of a felony." Subsection (b) states "a school district may terminate a contract with a person or business entity if the district determines that the person or business entity failed to give notice as required by Subsection (a) or misrepresented the conduct resulting in the conviction. The district must compensate the person or business entity for services performed before the termination of the contract."

THIS NOTICE IS NOT REQUIRED OF A PUBLICLY-HELD CORPORATION

**Complete only one of the three below: A or B or C.**

I, the undersigned agent for the firm named below, certify that the information concerning notification of felony convictions has been reviewed by me and the following information furnished is true to the best of my knowledge.

Official: Trent Peterson  
**Print Authorized Company Official's Name**

A. My firm is a publicly held corporation; therefore, this reporting requirement is not applicable.

**Signature of Authorized Company Official:** \_\_\_\_\_

**OR**

B. My firm is not owned nor operated by anyone who has been convicted of a felony;

**Signature of Authorized Company Official:** Trent Peterson

**OR**

C. My firm is owned or operated by the following individual(s) who has/have been convicted of a felony:

Name of Felon(s): \_\_\_\_\_

Details of Conviction(s): \_\_\_\_\_

You may attach another sheet

**Signature of Authorized Company Official:** \_\_\_\_\_

**CERTIFICATION BY CORPORATE OFFERER**

RFP 170702 Indoor Air Quality Equipment and Services

**IF OFFERER IS A CORPORATION,**

**THE FOLLOWING CERTIFICATE SHOULD BE EXECUTED AND INCLUDED AS PART OF PROPOSAL FORM/PROPOSAL FORM.**

OFFERER: Tillman & Associates, Inc.  
(Name of Corporation)

I, CHIP HOLDRIDGE certify that I am the Secretary of the Corporation  
(Name of Corporate Secretary)

named as OFFERER herein above; that

Trent Peterson  
(Name of person who completed proposal document)

who signed the foregoing proposal on behalf of the corporation offerer is the authorized person that is acting as

Trent Peterson, President  
(Title/Position of person signing proposal/offer document within the corporation)

of the said Corporation; that said proposal/offer was duly signed for and in behalf of said corporation by authority of its governing body, and is within the scope of its corporate powers.

N/A  
CORPORATE SEAL if available

Trent Peterson  
SIGNATURE

8/23/17  
DATE

**Federal Requirements for Procurement and Contracting with small and minority businesses, women's business enterprises, and labor surplus area firms.**

The Education Service Center Region 8 and TIPS anticipate possibly using federal funds for procurement under this potential award and is required to obtain the following compliance assurance.

**1. Will you be subcontracting any of your work under this award if you are successful?** (Circle one)

YES or NO

**2. If yes, do you agree to comply with the following federal requirements?** (Circle one)

YES or NO

2 CFR §200.321 Contracting with small and minority businesses, women's business enterprises, and labor surplus area firms.

(a) The non-Federal entity must take all necessary affirmative steps to assure that minority businesses, women's business enterprises, and labor surplus area firms are used when possible.

(b) Affirmative steps must include:

- (1) Placing qualified small and minority businesses and women's business enterprises on solicitation lists;
- (2) Assuring that small and minority businesses, and women's business enterprises are solicited whenever they are potential sources;
- (3) Dividing total requirements, when economically feasible, into smaller tasks or quantities to permit maximum participation by small and minority businesses, and women's business enterprises;
- (4) Establishing delivery schedules, where the requirement permits, which encourage participation by small and minority businesses, and women's business enterprises;
- (5) Using the services and assistance, as appropriate, of such organizations as the Small Business Administration and the Minority Business Development Agency of the Department of Commerce ; and
- (6) Requiring the prime contractor, if subcontracts are to be let, to take the affirmative steps listed in paragraphs (1) through (5) of this section.

Company Name Tillman & Associates, Inc.

Print name of authorized representative Trent Peterson

Signature of authorized representative Trent Peterson

Date 8/23/17

FAILURE TO PROPERLY COMPLETE THIS FORM AND SUBMIT WITH YOUR RESPONSE MAY RESULT IN A WAIVER OF YOUR RIGHTS UNDER THE LAW TO MAINTAIN CONFIDENTIALITY TREATMENT OF SUBMITTED MATERIALS.

CONFIDENTIAL INFORMATION SUBMITTED IN RESPONSE TO COMPETITIVE PROCUREMENT REQUESTS OF EDUCATION SERVICE CENTER REGION 8 AND TIPS IS GOVERNED BY TEXAS GOVERNMENT CODE, CHAPTER 552

If you consider any portion of your proposal to be confidential information and not subject to public disclosure pursuant to Chapter 552 Tex Gov't Code or other law(s), **you must make a copy of all claimed confidential materials within your proposal and put this COMPLETED form as a cover sheet to said materials then scan, name "CONFIDENTIAL" and upload with your proposal submission.** (You must include the confidential information in the submitted proposal as well, the copy uploaded is to indicate which material in your proposal, if any, you deem confidential in the event the District receives a Public Information Request.) Education Service Center Region 8 and TIPS will follow procedures of controlling statute(s) regarding any claim of confidentiality and shall not be liable for any release of information required by law. Pricing of solicited product or service may be deemed as public information under Chapter 552 Tex Gov't Code. The Office of Texas Attorney General shall make the final determination whether the information held by Education Service Center Region 8 and TIPS is confidential and exempt from public disclosure.

**I DO NOT desire to expressly waive** any claim of confidentiality as to any and all information contained within our response to the competitive procurement process (e.g. RFP, CSP, Bid, RFQ, etc.) by completing the following and submitting this sheet with our response to Education Service Center Region 8 and TIPS. The attached contains material from our proposal that I classify and deem confidential under Texas Gov't Code Sec. 552 or other law(s) and I invoke my statutory rights to confidential treatment of the enclosed materials:

\_\_\_\_\_  
Name of company claiming confidential status of material

\_\_\_\_\_  
Printed Name, Title, and Signature of authorized company officer claiming confidential status of material

\_\_\_\_\_  
Address City State ZIP Phone

ATTACHED ARE COPIES OF \_\_\_\_\_ PAGES OF CONFIDENTIAL MATERIAL FROM OUR PROPOSAL  
RFP 170702 Indoor Air Quality Equipment and Services

**Express Waiver: I desire to expressly waive** any claim of confidentiality as to any and all information contained within our response to the competitive procurement process (e.g. RFP, CSP, Bid, RFQ, etc.) by completing the following and submitting this sheet with our response to Education Service Center Region 8 and TIPS.

Tillman & Associates, Inc.  
Name of company expressly waiving confidential status of material

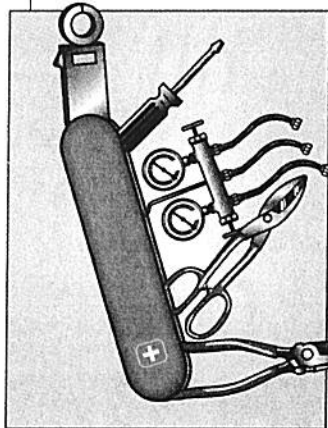
Trent Peterson, President, Trent Peterson  
Printed Name, Title, and Signature of authorized company officer expressly waiving confidential status of material

4525 Brittoncore Rd., Houston, TX 77041 713-983-7999  
Address City State ZIP Phone

RFP 170702 Indoor Air Quality Equipment and Services



S E R V I C E C L I N I C



# Coil Cleaning: MYTHS AND MISREPRESENTATION

William M. Dillard and Justin S. Salmon

*When you discover severely restricted air flow through a coil during normal service, it may be time to suggest a replacement, since attempting to clean such a coil may only make matters worse.*

### A Case Study

We've long touted the benefits of coil cleaning to our customers. It's only been in the last three to four years that we've questioned the validity of the processes we'd gone through to clean their coils, tested for results, and come up with some surprising conclusions.

First let me state that we've tested a wide variety of coil cleaners, and for extreme cleaning, we now use an industrial pressure sprayer/boiler that supplies 180F water to apply such cleaners.

In this case, our customer was getting repeated complaints from tenants that

there was "black stuff coming out of the vents." It was a recurring problem that a number of other contractors had attempted to correct.

Our Environmental Services Group re-cleaned the coils (25 sq. ft., 4 row) using 180F water and an aggressive new coil cleaner we'd been wanting to try. We had our technicians collect all the water in a 55-gal. drum, decant the mixture and strain the residue through a standard paint strainer.

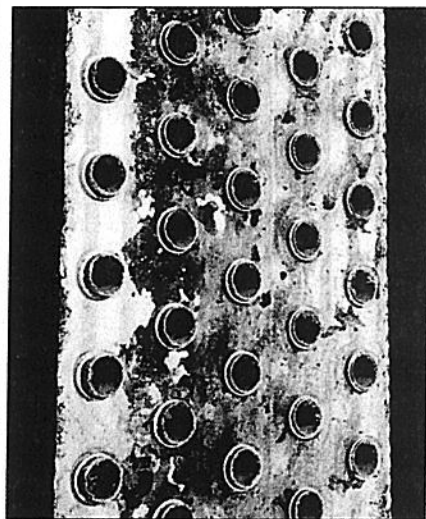
The result was about 1 lb. of sludge that looks remarkably like the material

that was landing on the desks of people at the end of the line served by that air handling system. Under the microscope at Grove Scientific (an Industrial Hygiene Group we partner with) we could see vibrant life in what should have been sterile sludge after being blasted with 180F water and coil cleaner. What's the bottom-line? In cases where coils have

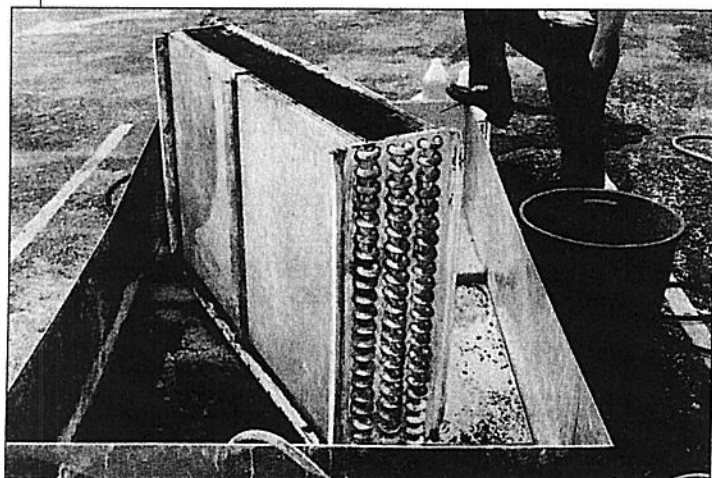
been neglected, it's often far cheaper to replace them than to try to clean them.

Why? Because we simply aren't getting coils clean with traditional coil cleaning strategies.

No matter how good the coil cleaner, no matter how good the sprayer used to apply the cleaner, what we've really been doing is "packing" the coil with organic and biologically active matter. The packing process occurs using the traditional cleaning methods (which include applying coil cleaner according to manufacturer's recommendations and then using a high-pressure sprayer/boiler to wash the particulate out of the coils.



*Dissection of this coil, after it was removed from service, revealed excessive internal contamination. It appears that previous cleaning efforts had little effect, reaching only an inch or so into the coil.*



*When this coil was removed from service, an interior packed with dirt and grime was revealed, despite hours of cleaning effort.*

Many sources advise cleaning the coil from one side to prevent this packing but modern fin design can severely restrict the effectiveness of the pressure sprayer beyond about one inch into the coil. Better "visible" results are obtained by cleaning from both sides, but unfortunately, this often packs the par-

ticulate further into the coil interior causing an increase in the air pressure drop through the coil.

How do we know? We simply use basic National Environmental Balancing Bureau NEBB test and balance procedures to measure air pressure drop and air volume across the coils and compare them with factory conditions. In coils that have been poorly maintained, the pressure drops consistently exceed the manufacturers ratings indicating the packed conditions we've confirmed by dissecting such coils.

When the material still resident in the coils is tested, it's almost always biologically active — meaning it's alive with multiplying organisms that live and grow in that wonderful, nutrient-rich, wet atmosphere known as the cooling coil.

That kind of research has driven us to a higher standard when attacking this problem.

In order to determine the condition of the coil, it's necessary to measure both the pressure drop and the airflow through that coil (a dirty coil will exhibit a decrease in air volume and an increase in pressure drop). Then, a simple calculation to predict pressure drop at design air volume will complete the picture.

To illustrate this, let's imagine a coil designed for 4,000 CFM at .4-in. WG pressure drop. Your test measurements indicate only 3,000 CFM (25% low) at .5-in. WG (25% high). Neither of these results looks too serious, but using the fan law formula:



**Full-strength coil cleaner applied to the surface of cooling coils then flushed with high-pressure hot water will result in a coil that appears to be clean, but may actually be a hotbed for microbial growth. Increased pressure drop and reduced air volume through such coils is a red flag that says it's time for a replacement.**

$$SP2 = \frac{(CFM2)^2}{(CFM1)^2}$$

$$SP1 = \frac{(CFM1)^2}{(CFM2)^2}$$

where CFM2 = 4,000, SP1 = .5-in., and CFM1 = 3,000 CFM

The result is that SP2 (the static pressure that it would take to push the design air volume through the dirty coil) equals =

$$\frac{4,000 \times 4,000 \times .40}{3,000 \times 3,000}$$

$$= \frac{640,000}{9,000}$$

which = .71 in., more than 1.75 times the design pressure drop.

### A Time To Change

Based on the above, and our hands-on coil cleaning experience, if your calculated pressure loss for a cooling coil that's over four rows in thickness is in excess of 1.5 to 3 times the factory ratings, it's time to consider a coil change. Why? Simply because you're not going

to get that coil clean with presently known cleaning procedures.

You've reached the point where the labor cost to attempt cleaning such a coil is likely to exceed the cost of materials and labor to replace it. And, chances are your efforts to clean it will fail anyway.

What about all the claims by the producers of coil cleaning products regarding those products' ability to clean such surfaces?

We've removed contaminated coils, soaked them in various coil cleaners (overnight) and were still unable to remove the "packed" biological mass from the interior fin surfaces. (see the accompanying photos)

This article isn't meant to attack coil cleaning product manufacturers, or their performance claims. Our experience merely points out that the accepted industry cleaning procedures aren't adequate in cases where coils have been neglected. Depending on the environment that cooling coils operate in, a coil doesn't have to be very old before it requires replacement versus standard cleaning procedures.

placement versus standard cleaning procedures.

### What We've Learned

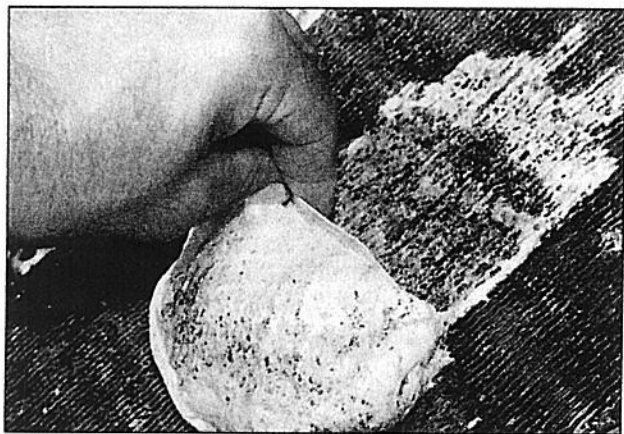
What have we learned from all our research?

First, good coil cleaning procedures have to start when coils are put into operation, not two or three years down the road!

Second, in cases where the pressure drop exceeds 1.5 to 3 times the rated capacity, it's time to estimate a coil replacement. If you complete the estimate and you're still not sure of the economics in the cost of the fan energy required to deliver air at the new pressure drop, remember that increasing the pressure drop through the coil dramatically increases the amount of fan energy required to deliver the designed air quantities.

By suggesting a changeout when coils become impacted, you'll be doing your customer a tremendous favor because he/she will be saving both energy and improving the indoor environment. And, after you've changed that coil, don't forget to upgrade those filters — after all, that's the primary reason you had to change the coil in the first place. (Cg)

**William M. Dillard** is president and chief executive officer of Mechanical Services of Orlando, Inc., (MSI) Orlando, FL. The article's co-author, **Justin S. Salmon**, is manager of Environmental Services. MSI is a full-service, commercial/industrial mechanical contractor specializing in Design/Build HVAC and refrigeration. They can be reached at 407/857-3510, or e-mail Dillard at [billd@msifla.com](mailto:billd@msifla.com). MSI also has an Internet site at <http://www.msiflacom.com>.



**If properly maintained and regularly cleaned with coil cleaners and hot water, a coil's interior as well as its exterior can be kept clean. The bubbling action of foaming cleaners can actually lift the dirt from the coil's interior.**

POINT: "In cases where coils have been neglected, it's often far cheaper to replace them than try to clean them."

# YOU'LL WANT TO KNOW

## UVC Lights Enhance IAQ, Reduce AHU Operating Costs

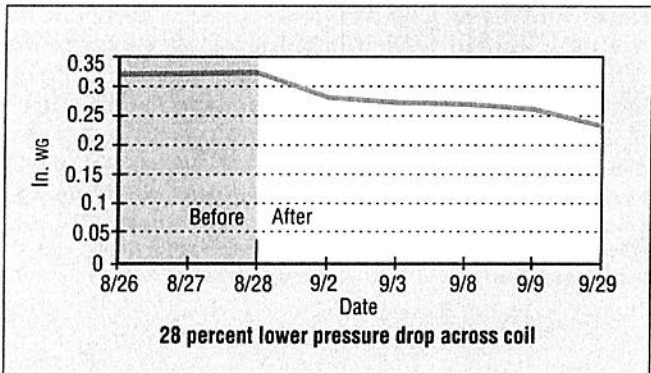
CITY OF INDUSTRY, CALIF.—Southern California Air Conditioning Distributors (SCACD), the world's largest Carrier distributor, wanted to investigate additional indoor air quality (IAQ) improvement methods in its 30-year-old administrative facility located here. According to Bruce Fuhrmann, commercial manager for SCACD, he knew from visual inspections that there were typical accumulations of dirt and mold around the cooling coil and drain pan in the central station

air handler. He believed that this condition might be the source of non-specific odors in the building and knew it was impeding heat transfer efficiency.

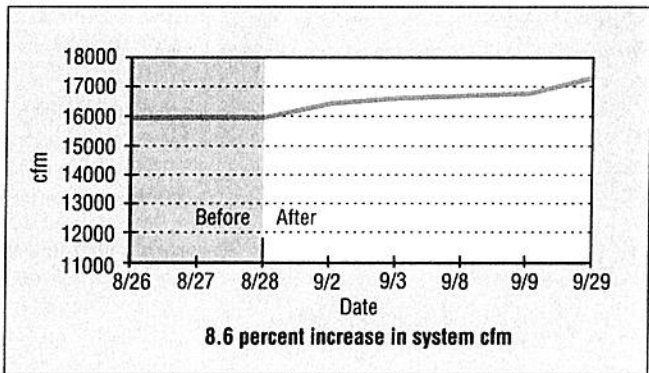
Fuhrmann had heard that a new, high-output UVC light source designed for HVAC applications was being marketed specifically for these problems. He had also heard about this product's ability to degrade accumulated organic materials, so he decided to try it and evaluate the results.

SCACD had another reason for testing the UVC Emitter™, manufactured by Steril-Aire, Inc. If it worked, SCACD would market the device to the engineering community and commercial and residential customers through its network of contractors and dealers. Before taking that step, they needed to be sure that the device worked as claimed.

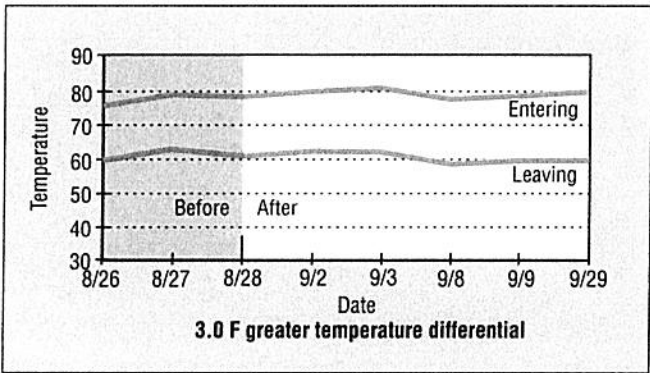
The product is a multi-patented, germicidal device that uses a newly developed combination of tube construction and



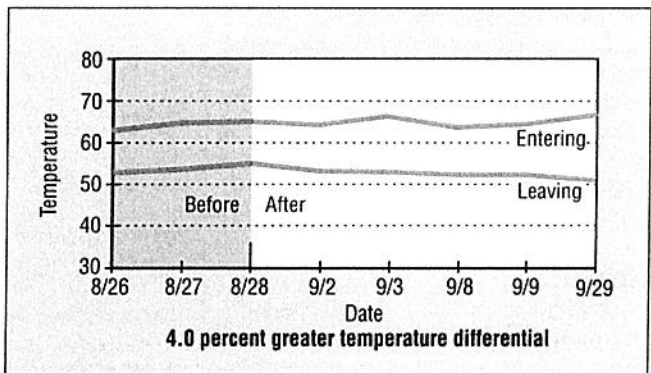
1 Cooling coil pressure drop (DX).



2 System air flow.



3 Dry bulb temperatures.



4 Wet bulb temperatures.



matched solid-state power supply to eradicate mold, bacteria, viruses, and other pathogens that grow and circulate in HVAC systems. The Steril-Aire device operates at peak efficiency in the cold and/or moving air environments of air handling systems—a major breakthrough in artificial UVC production and bioaerosol control. It also breaks down organic materials, including volatile organic compounds (VOCs) and other odors. SCACD also selected this product because its performance was independently tested and selected by NIOSH on behalf of the Centers for Disease Control (CDC) for efficacy testing of tuberculosis in HVAC air streams.

Prior to installation, microbial sampling was performed on and around the cooling coils and drain pan. Laboratory testing on the samples showed average to high counts of mold and bacteria growth. Also, pressure drop readings across the cooling coils were recorded, along with air entering and air leaving dry and wet bulb temperatures, to determine the system's existing capacity. According to Fuhrmann, these steps established a baseline that would enable him to determine whether any of the system's existing performance characteristics would actually change and by how much.

On August 28, 1997, the UVC emitters were installed according to manufacturer's recommendations. The lights were easily installed in the 16,000 cfm constant volume DX system.

In just a short time, the mold and bacteria in the system and the associated odors disappeared. Identical microbial sampling gathered only a few days after installation verified an average 99 percent drop in colony-forming units over the original samples.

Based on readings taken just prior to the UVC installation and one month after, the pressure drop across the cooling coil decreased by over 30 percent (Fig. 1), while system air flow went

from 16,000 to 17,400 cfm; an 8.6 percent increase (Fig. 2). Wet and dry bulb coil leaving temperatures also dropped (Fig. 3 and 4), thus providing a greater temperature differential between entering air and leaving air. This combination of factors has brought about an increase in capacity.

Because the rejuvenated coils allow more heat transfer and air volume, SCACD is enjoying a 30 percent increase in total system cooling capacity from 548,502 (prior to UVC installation) to 797,094 Btu. SCACD has since performed monthly testing for nearly a year, and every result is equal or better, thereby maintaining the increased capacity.

Because of these operational improvements, SCACD reports an improvement in energy efficiency. Based on a conservative 3000 annual operating hours, an energy efficiency ratio (EER) of 8, and an energy cost of \$0.10 per kWh, the company is close to realizing a first-year energy improvement of over \$5000. Subtracting UVC initial installation and operating costs (slightly over \$5000) from this total, SCACD anticipates a complete payback in the first year.

In subsequent years, operating and replacement costs for the lights are expected to be only about \$1000 annually, so savings will be over \$4000 per year using current costs.

Fuhrmann noted that when the lights were installed, the IAQ and health aspects were of prime consideration. And while the devices have definitely enhanced air quality in the building, he was impressed with the operational benefits. The device's ability to increase system performance to almost "as-new" levels is expected to prolong the life of the mechanical equipment, and the increase in capacity is a much-needed advantage, given the current occupancy of the building.

Savings can manifest themselves in several ways, depending on operating conditions, stated Fuhrmann. In SCACD's case, it was able to eliminate the costs of adding supplemental cooling, and the cost of replacing the entire unit. For others, it can reduce the compressor and fan run-time of a DX system, or allow chilled water users to raise their chilled water temperature back to original design conditions. Also, potential air horsepower savings should not be ignored, especially for those who utilize variable frequency drives. These can all be significant, hard-dollar savings that can continue for the life of the system.

*Information and schematics courtesy of Steril-Aire Inc.*

COUNTERPOINT: "Steril-Aire UVC Emitters™ can return dirty coils to "as-new" performance for energy and maintenance savings and more... It's proven!"

Represented By:

*Tillman & Associates  
4525 Britton Rd.  
Houston, TX 77041  
713-983-7999  
Attn: Gail Traylor*

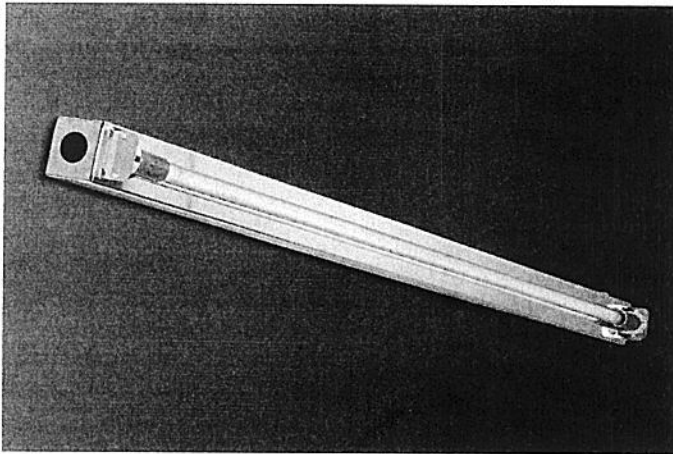
# STERIL-AIRE®

UVC for HVAC™

## Model DE Series UVC Emitters™

Double-Ended, Very High  
Output Germicidal UVC  
for HVAC Systems

Competitive UVC lights must be changed every 3-4 months because they quickly lose the output or “killing power” needed to maintain microbial control. The UVC Emitter, by contrast, has a 12-month service life – and even after a full year, it has more than 3 times greater output than competitive devices deliver on Day 1! As a result, only Steril-Aire can ensure the germicidal performance you need.

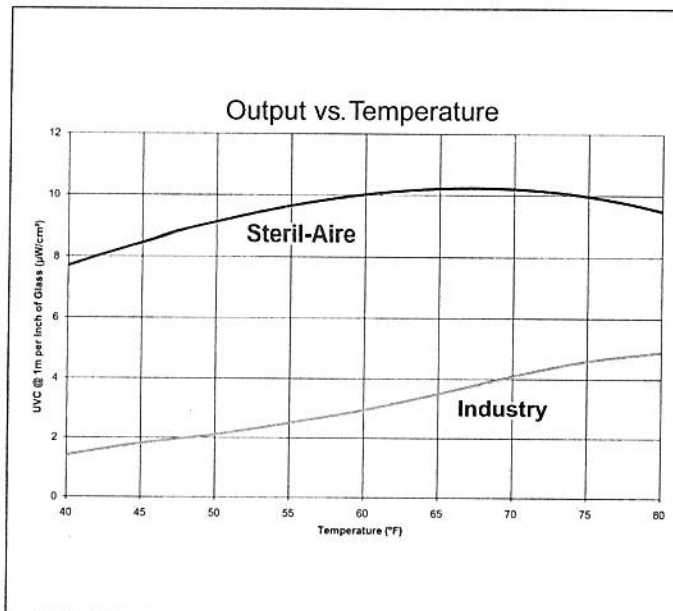


### Applications

Steril-Aire Double-Ended (DE Series) fixtures are used for internal installation in new and retrofit, medium to large air handling systems in commercial, industrial, health care and institutional buildings. They may be mounted singly, in built-up banks or in parallel configurations in a variety of locations, including coils, drain pans, ductwork, mixed air plenums and exhaust systems. The DE Series is available in six lengths (18”, 24”, 30”, 36”, 42” and 62”) 110-277 V, 50/60 Hz, providing installation flexibility to accommodate virtually any system.

### Benefits

- Reduces HVAC energy costs by restoring heat transfer and net cooling capacity.
- Uses germicidal UVC irradiation proven as an effective inactivation method for mold, bacteria and viruses.
- Eliminates costly cleaning programs and the use of harmful chemicals and disinfectants by continuously cleaning coils, drain pans, plenums and ducts.
- Delivers up to 6 times the output of competitive UVC products at HVAC operating temperatures, for longer life and more reliable germicidal control.
- Offers lowest life-cycle cost of any UVC product. Return on investment is often less than one year.
- Uses patented state-of-the-art solid-state electronic power supply for enhanced reliability and performance.
- Produces no ozone or other secondary contaminants.
- The most widely used germicidal UVC for commercial HVAC systems.
- Improves Indoor Air Quality (IAQ).



Steril-Aire’s multi-patented UVC Emitter provides the best and longest-lasting UVC performance available. As shown in the comparison graph (above), it has been independently tested to deliver up to 6 times the output of other ultraviolet devices under HVAC operating conditions (50 °F @ 400 fpm air velocity).

## Model DE Specifications

The UVC Emitter™ and fixture shall be factory assembled and tested. They shall consist of a fixture, power supply, reflector, Emitter sockets and Emitter.

The fixture shall be constructed of 304 stainless steel to withstand HVAC environments. The reflector shall be constructed of heavy gauge, specular finished aluminum alloy with approximately 85% reflectance at 254 nm wavelength. The housing shall be equipped with 1/2" electrical conduit opening/s on each end to facilitate wiring fixture-to-fixture coupling. All components shall be in one integral assembly to maximize serviceability.

The power supply shall be a Class P2 with a power factor greater than 0.98 and a power conversion of greater than 90%. The power supply design shall include RF and EMI suppression. The power supply shall be designed to maximize photon production, irradiance and reliability in cold airstreams of 0-140 °F, 100% RH. The power supply shall be available in 110-277 V, 50/60 Hz, single phase.

The Emitter sockets are medium bi-pin, double click safety, twist lock type. They shall be constructed of UVC-resistant polycarbonate.

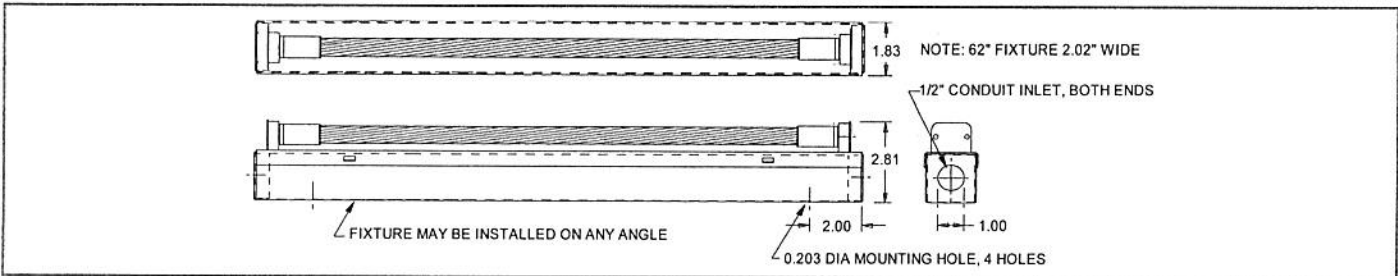
The Emitter shall be a very high output, hot cathode, T5 diameter, medium bi-pin type that produces germicidal UVC of 253.7 nm. The DE Emitter shall operate in air velocities of up to 2000 fpm and air temperatures of 35-140 °F. It shall produce no ozone or other secondary contaminants.

**Independent testing:** The unit shall be tested by an independent test laboratory and shall be verified to provide output per one inch arc length of not less than 9 µW/cm<sup>2</sup> at 1 meter in a 400 fpm airstream of 50 °F.

Unit shall comply with ANSI/UL Standards 153, 1598, 1995, and CSA and CE standards. The manufacturer shall be an ISO 9001:2008 certified facility.

Sleeved, shatter-resistant Emitters shall be available, ensuring the highest level of protection for moisture-proof applications.

**Mounting:** Custom rack/framing configurations are available for any coil or air handler.



This product may be covered by one or more of the following patents, others pending: 5,334,347 / 5,817,276 / 5,866,076 / 6,245,293 / 6,267,924 / 6,280,686 / 6,313,470 / 6,372,186 / 6,423,882 / 6,500,267 / 6,589,476 / 6,627,000 / 6,997,578 / 7,140,749 / 7,282,728 / 7,459,694.

## Ordering Information

Model No.	Part No.	Description	Fixture Length	Electrical	Wattage
DE 181 VO	10002100	Double-Ended Fixture	18"	110-277 V	50 W
DE 241 VO	10002200	Double-Ended Fixture	24"	110-277 V	72 W
DE 301 VO	10002300	Double-Ended Fixture	30"	110-277 V	84 W
DE 361 VO	10002400	Double-Ended Fixture	36"	110-277 V	98 W
DE 421 VO	10002500	Double-Ended Fixture	42"	110-277 V	109 W
DE 621 VO	10002600	Double-Ended Fixture	62"	110-277 V	150 W

### Replacement UVC Emitters

Model No.	Part No.	Description	Emitter Length	Wattage
GTD 16 VO	20000100	UVC Emitter -DE 181	16.1"	50 W
GTD 22 VO	20000200	UVC Emitter -DE 241	22.4"	72 W
GTD 28 VO	20000300	UVC Emitter -DE 301	28.4"	84 W
GTD 34 VO	20000400	UVC Emitter -DE 361	34.4"	98 W
GTD 40 VO	20000500	UVC Emitter -DE 421	40.4"	109 W
GTD 60 VO	20000600	UVC Emitter -DE 621	60.4"	150 W

Optional Accessories	Part No.
DE Boot Kit for 1 DE fixture	90000223
DE Boot Kit for 10 DE fixtures	90000224
DE Wiring Kit for up to 65" (DE Bank install)	90000603



# STERIL-AIRE®

Steril-Aire, Inc.

### Corporate Office:

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Website: [www.steril-aire.com](http://www.steril-aire.com)  
Email: [sales@steril-aire.com](mailto:sales@steril-aire.com)

Represented By:

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*Houston, TX 77041*  
*713-983-7999*  
*Attn: Gail Traylor*



# STERIL-AIRE®

## UVC for HVAC™

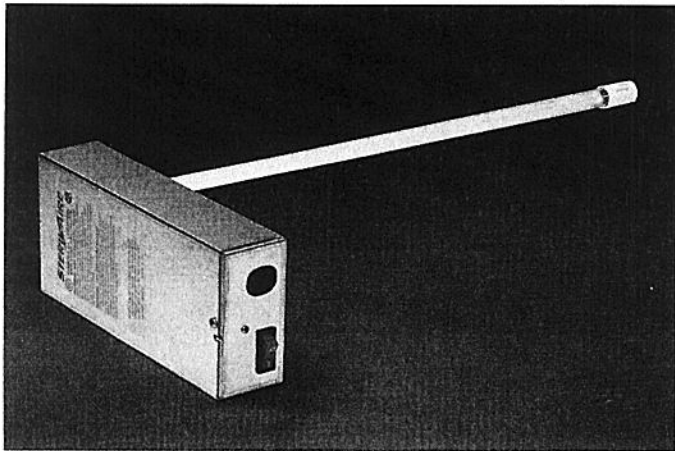
# SteriLight I™

## Model RSE I Series

### UVC Emitters™

Very High Output  
Germicidal Light Source  
for Residential Systems

year, it has 2-1/2 times greater output than competitive devices deliver on Day 1! As a result, only Steril-Aire can ensure the germicidal performance you need, with no return of microbial growth, for 3-4 times longer than the competition.

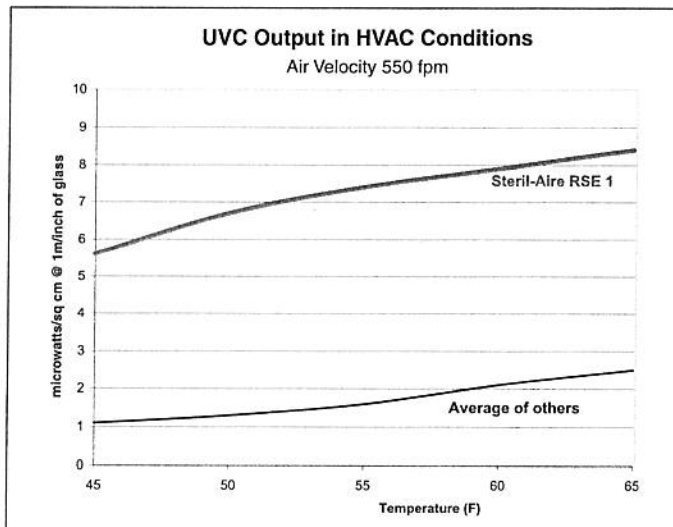


## Applications

SteriLight Model RSE I fixtures are designed for residential and light commercial applications, including "N" style, "W" style, slab and counter-flow "A" coils. The single-tube devices are easily installed by making a one-inch hole in the coil box, attaching the fixture with self-tapping screws, and wiring as required (soft or hard wired). Only the lamp or tube penetrates into the system, while the power supply remains external. Choose from three tube lengths (16", 20" and 24") and three voltage options (115, 208, or 230 Vac).

## Benefits

- Kills or inactivates surface and airborne microorganisms that contribute to poor IAQ and/or the spread of infectious disease, including: mold and mold spores, bacteria (including *TB*, *Legionella*, *E. coli*, *Listeria*, *salmonella* and *whooping cough*); and viruses (including *colds*, *flu*, *measles*).
- Delivers an average of 5 times the output of competitive UVC products at HVAC operating temperatures, for 3-4 times longer life and more reliable germicidal control.
- Uses patented state-of-the-art solid-state electronic power supply for enhanced reliability and performance.
- Continuously cleans coils, drain pans, plenums and ducts, eliminating costly cleaning programs and the use of harmful chemicals and disinfectants.
- Lowers A/C energy costs by restoring heat transfer and net cooling capacity.
- Produces no ozone or other secondary contaminants – will not harm occupants, furnishings or A/C equipment.
- Offers lowest life-cycle cost of any UVC product. Return on investment is often less than one year.
- Installs quickly and easily, with no need to open equipment.



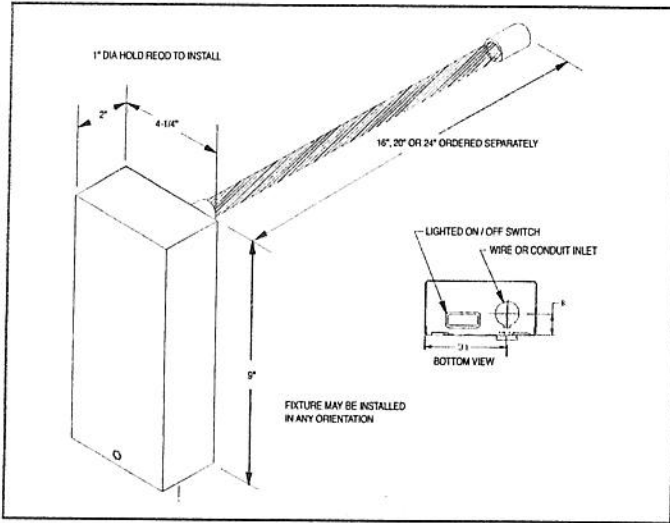
Steril-Aire's multi-patented UVC Emitter™ provides the best and longest-lasting UVC performance available. As shown in the comparison graph (above), it has been independently tested to deliver an average of 5 times the output of other ultraviolet devices under HVAC operating conditions (45° F @ 550 fpm air velocity).

Competitive UVC lights must be changed every 3-4 months because they quickly lose the output or "killing power" needed to maintain microbial control. The UVC Emitter, by contrast, has a 12-month service life – and even after a full

# Model RSE I Specifications

All SteriLight I™ units shall be factory assembled and tested. They shall consist of a housing, power supply, Emitter sockets and Emitter.

The housing shall be constructed of galvanized steel to withstand HVAC environments and shall be equipped with a 1/2" electrical conduit opening to facilitate wiring. All components shall be incorporated into one integral assembly that maximizes serviceability. It shall be designed for mounting from outside the airstream with only the Emitter in the conditioned air. The Emitter shall be held in place and



This product may be covered by one or more of the following patents, others pending: 5,334,347/ 5,866,076/ 5,817,276/ 6,372,186/ 6,313,470/ 6,245,293/ 6,267,924/ 6,280,686/ 6,423,882.

supported in the airstream by a patented integral collar, o-ring and heavy-duty fastener. The housing shall include an on-off switch and an indicator light to verify that the Emitter is functioning.

The power source shall be a Class P2, electronic rapid start type with a power factor of >0.95 and a power conversion of >75%. It shall be available in 115 or 208/230 Vac, 50/60 Hertz, and single phase. It shall be designed to maximize photon production, irradiance and reliability in cold or moving airstreams of 35-170° F, 100% RH and up to 2000 fpm. The design shall include RF and EMI suppression.

The socket shall be a Circline® 4-pin type with sufficient wire length for ease of service.

The Emitter shall be a high output, hot cathode, T5 diameter, Circline® cell-base type that produces a UVC band of 250-260 nm. Each tube shall be capable of producing the specified output at up to 2000 fpm velocity and temperatures of 35-170° F. It shall produce no ozone or other secondary contaminants.

**Independent testing:** The unit shall be tested by an independent test laboratory in accordance with the general provisions of IES Lighting Handbook, 1981 Applications Volume, and shall be verified through independent testing to provide output per 1" arc length of not less than 10 µW/cm<sup>2</sup> at 1 meter in a 400 fpm airstream of 45° F.

Unit shall comply with UL Standard 1995 for use in HVAC equipment and shall carry the "UL" and "ULC" labels.

## Ordering Information

Model No.	Part No.	Description	Length	Electrical	Weight
RSE 1 VO	42001100	Single-Ended Fixture	N/A	115, 208, 230V: 70-85 watts	3.0 lb.
GTS 16 VO	21000100	UVC Emitter	16"	N/A	0.15 lb.
GTS 20 VO	21000200	UVC Emitter	20"	N/A	0.15 lb.
GTS 24 VO	21000300	UVC Emitter	24"	N/A	0.20 lb.
GTS 30 VO	21000400	UVC Emitter	30"	N/A	0.20 lb.
GTS 36 VO	21000500	UVC Emitter	36"	N/A	0.25 lb.
GTS 42 VO	21000600	UVC Emitter	42"	N/A	0.25 lb.

# STERIL-AIRE®

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Complies with current U.S. and Canadian UL Standards for use in HVAC equipment.

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**AIREDALE**--Classroom Through the Wall Air Conditioning Units \*\*\* Direct Replacement Units \*\*\* Vertical Inside the Room \*\*\* Corner Units. [www.airedaleusa.com](http://www.airedaleusa.com)

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**COMMERCIAL ACOUSTICS**--Sound Attenuators \*\*\* Acoustical Louvers \*\*\* Duct Silencers \*\*\* Acoustical Panels & Enclosures \*\*\* Transfer Air Acoustical Ducts. [www.mfmca.com](http://www.mfmca.com)

**ENVIRCO**-- MAC 10 Fan Powered HEPA Filter Units Laminar Flow Benches \*\*\* Laminar Downflow Units \*\*\* Portable Process Isolation Modules \*\*\* Terminal HEPA Filters \*\*\* Bio-Hazardous Cabinets. [www.envirco.com](http://www.envirco.com)

**INDUSTRIAL COMMERCIAL EQUIPMENT**—Commercial and Industrial Heating Units \*\*\* Direct Fired Makeup Air Units \*\*\* Indirect Gas Fired Tubular Makeup Air Units \*\*\* Large Space Gas Heating Air Turnover Units. [www.ice-us.com](http://www.ice-us.com)

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**SEASONS-4**--Packaged Roof Top Units \*\*\* Direct Replacement Multi-zone Units \*\*\* Makeup Air-Cooled and Water-Cooled. [www.seasons4.net](http://www.seasons4.net)

**STERIL-AIRE**--Ultraviolet disinfectant emitters for air conditioning unit and duct microbial control. [www.steril-aire.com](http://www.steril-aire.com)

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