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# Cool Profits Magazine (May/June 1999) Technology Report -

"CoreKote 2000<sup>TM</sup>: New Surface Coating Promises Superior Corrosion Protection" An interview with Se-Cliff Coatings' Steve Basil and Tom Clifford by IM Cool

# **CPM:** So what is CoreKote 2000<sup>™</sup>?

**SB:** It is an electrochemically applied coating – not paint – that is extremely flexible, durable, and resistant to impact. Our unique application technique provides a coating that is very uniform, from 0.8 mils (thousandths of an inch) to 1.2 mils thick. And, there is absolutely no bridging between fins (up to 30 fpi), even if the fin is highly louvered. The product is guaranteed to cover 100% of all external surface, no matter how thick the core! It adheres tenaciously to aluminum, copper, brass, and galvanized and stainless steels. Plus, it will never flake.

### **CPM:** For the record, what does it do?

**SB:** CoreKote 2000<sup>™</sup> is resistant to many chemicals, solvents, acids (as low as 3 pH), and bases (as high as 10 pH). When applied to heat exchangers, for instance, it significantly retards corrosion to those units that are subjected to corrosive environments.

### **CPM:** Does the coating restrict heat transfer?

**SB:** Independent tests have shown that heat exchangers coated with CoreKote 2000<sup>™</sup> suffer less heat transfer loss than those coated with paint. Also, it has been known for a number of years that painting a core actually increases the rate of corrosion over that of an unpainted core. CoreKote 2000<sup>™</sup> retards the rate of corrosion. Other tests have proven that the coating extends the useful life of heat exchangers by a factor of 3 to 10.

#### CPM: Cuts down on core sales, doesn't it?

**TC:** Yes, and no. Yes, because customers do not have to replace failed units as often, No, because it gives me two legs up on my competitors. When I bring this advanced technology to my customer it assures him that 1) my shop is up to date, and 2) I'm reputable and obviously have his best interests as my number 1 priority. I decrease his costs of operation by extending the life of his heat exchangers.

Also, my pride says that I want to be one of the first to solve this problem that affects so many heat exchangers. CoreKote 2000<sup>™</sup> provides that opportunity and allows us to distinguish ourselves from the rest of the pack. I expect to capture new customers and enter new markets. And, heck, this is an up sale, and we make a good profit!

# **CPM:** What are the most common applications for CoreKote 2000<sup>™</sup>?

**TC:** Any fluid-to-air heat exchanger that may fail prematurely due to excessive external corrosion. We've used it successfully on: industrial coils, chiller and hot water/steam coils, marine/coastal coils found on oil platforms and ships and stationary heat exchangers found in chemical plants, hazardous waste facilities, steel mills, mining, agriculture, etc. The harsher, more corrosive the environment, the better we shine, er protect!

### **CPM:** How about hazardousness?

**SB:** At the facility where our coating process is done, all the necessary environmental controls are in place. However, because this is a water-based chemistry the environmental impact is minimal even at the processing level. Once the coating is cured, which is accomplished at our facility, the coating is environmentally safe.

CPM: If this coating is so great, why haven't we heard about it before?

**SB:** Certain industries have been using this type of coating for over twenty years. It has only been in the last ten years or so that coating heat exchangers with this technology became viable. Previously, the technology had not been advanced to the point where it would cover fin and louver edges properly. With poor edge coverage, corrosion can begin in as little as 24 hours. Using this perfected edge coverage formula, Europeans have been coating their heat exchangers for about ten years now.

Currently in the US, we are the only aftermarket source guaranteeing 100% coverage, including edges, and 0% bridging. Currently, three radiator core/condenser/evaporator manufacturers are referring their customers suffering from severe corrosion problems to our coating service.

**CPM:** All right. I'm a shop owner and I want to use your service. What's my turnaround time? How large of units can be covered? How long will the coating last? **TC:** Not including shipping to and from our Louisville facility, the turnaround time is 3 to 5 days. The maximum size unit we can coat is 25'6" x 8' x 32" (thick). Maximum weight: 5,000 lb. Maximum fin spacing: 30 fpi. As far as the life of the coating, we advise our customers that the coating lasts a lot longer if they keep it away from abrasive forces like constant rubbing, sand blasting, hammers, screw drivers, chain saws, etc. If we are dealing with corrosion with abrasion, the unit will last 3 to 10 times as long as it does now.

# **Note: Information Change**

This article's last paragraph (about CoreKote2000 information resources) contained information which has changed since publication and so is not reprinted here. Additionally, see "Standard Warranty" on the website *for full one year warranty information*.

However, for downloadable information (technical papers, service bulletins, policies and procedures, etc.) regarding CoreKote2000 - visit the website: <u>www.corekote.com</u>.

# Note: Cool Profits Magazine

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