

The logo features a large, bold, black 'H' and 'C' on the left. A diagonal slash cuts through both letters. To the right of the 'H' and 'C' is the word 'HEATCON' in a bold, orange, sans-serif font, with a registered trademark symbol (®) to its upper right. Below 'HEATCON' is the word 'COMPOSITE SYSTEMS' in the same orange, bold, sans-serif font.

H **HEATCON**[®]
C **COMPOSITE SYSTEMS**

COMPLETE COMPOSITE REPAIR SYSTEMS

HEATCON®

History

- **1978 - HEATCON® incorporated to Sell Industrial Electric Heating and Control Equipment**
- **1981 – HEATCON II (Composite Repair System) developed**
- **1986 - HEATCON® Composite Systems formed as subsidiary of HEATCON®, Inc.**
- **TODAY - HEATCON® and HEATCON® Composite Systems Employ over 50 People Throughout the World**
- **HEATCON®, Inc. - Branch Office in Utah**
- **HEATCON® Composite Systems - Branch Offices in Texas, the United Kingdom and China.**

HEATCON[®] COMPOSITE SYSTEMS

Who Are We?

- **World leader in Composite Repair Equipment, Repair Material Sales and Technical Services to the Advanced Composite Repair Industry**
- **Based in Seattle, WA, USA**
- **Since the First Sale to Boeing in 1981, Our Equipment Has Been Recognized as Being the Best**
- **Gained a Worldwide Reputation for Quality and Reliability**
- **Primary Customers: Support Maintenance of Commercial, Corporate and Military Aircraft**
- **Numerous OEM Customers**

HEATCON[®] COMPOSITE SYSTEMS

Mission Statement

→ **Our Vision:**

To be recognized as a superior provider of innovative technical solutions.

→ **Our Mission:**

As individuals, we believe that teamwork and customer satisfaction are the foundation of our past and future success. We are committed through the skills of every one of our employees to be a vibrant, innovative and responsible world market leader in composite repair equipment, materials, training and technology to the Aerospace industry. We will uphold our reputation for quality products, values, service and engineering expertise, while pursuing with aggressive determination to be our customer's number one supplier.

→ **Our Values:**

In all of our relationships we are committed to these primary values:

- * Ethics
- * Innovation
- * Customer Satisfaction
- * Quality
- * Professionalism
- * Growth & Profitability

HEATCON[®] COMPOSITE SYSTEMS

Advancing Technology Since 1981

Seattle, USA

Corporate Office/
Manufacturing

Dallas, USA

Technical Services/
Government Sales
Office

St. Ives, UK

Europe Sales Office

Shanghai, PRC

Asia Sales Office



Worldwide Facilities

R = Representative Office

HEATCON[®] COMPOSITE SYSTEMS

TEAM Approach

T *Technical Services*

- Hands-On Composite Repair Training On-Site or at Our Facilities

E *Equipment*

- Hot Bonders, Vacuum Generators, Thermocouple Welders, etc.

A *Accessories*

- Heating Blankets, Thermocouples, Vacuum System Accessories, etc.

M *Materials*

- Small & Large Quantities of Prepregs, Film Adhesives, Dry Cloth, Resins, etc.

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Technical Services

→ **Training**


- * Repair Techniques for Composite Technicians
- * Advanced Repair for Composite Technicians
- * Art and Science of Hot Bonding
- * FlightSafety Boeing Training
- * On-Site Training Programs

→ **Consulting & Facilities**

- * Repair Technical Assistance
- * Turn-key Repair Facilities Design and Installation
- * Technical Documentation
 - Repair Station Manuals
 - Technical Publications
 - Training Manuals

HEATCON[®] COMPOSITE SYSTEMS

Equipment

- HCS9200B Single Zone Composite Repair System
- HCS9200B Dual Zone Composite Repair System
- HCS9000-FL Single Zone Hazardous Environment Hot Bonder
- HCS9200-FL Dual Zone Hazardous Environment Hot Bonder
- HCS2046-02 PACS (Phosphoric Acid Containment System) 
- HCS2047 Heat Blanket Tester
- HCS7500 Heated Vacuum Debulking/Curing Table
- HCS2042 Temperature Monitor Console

Military National Stock Numbers (NSN's) available on most equipment

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HEATCON II Technology

- Variac (Voltage Regulator)
- Ramp & Soak Controllers
- Single Thermocouple Control and Monitoring
- Vacuum Generator



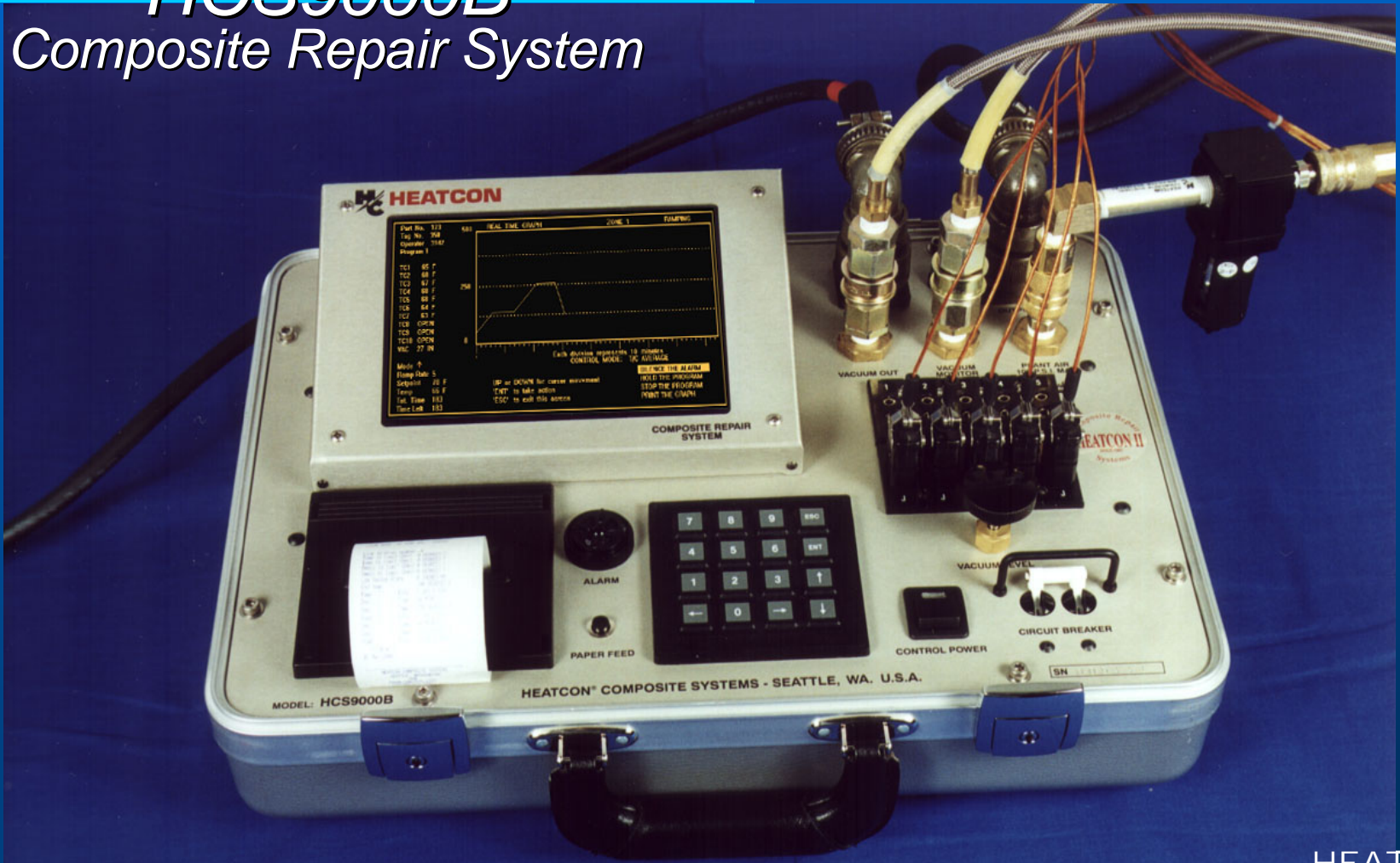
HEATCON[®] COMPOSITE SYSTEMS

Current Technology

- **Computer Controlled - up to 30 Programs**
- **Easy to Operate - Easy to Upgrade**
- **Multiple Thermocouple Control and Monitoring with Alarms - 10 Thermocouples per Zone with Dual Voltage**
- **Plain Paper Printout - Cure Data**
- **Comprehensive Information on Hi-Bright Electroluminescent VGA Screen Including Graph of Cure**
- **Built-in Vacuum Port - Plant Air**

HEATCON[®] COMPOSITE SYSTEMS

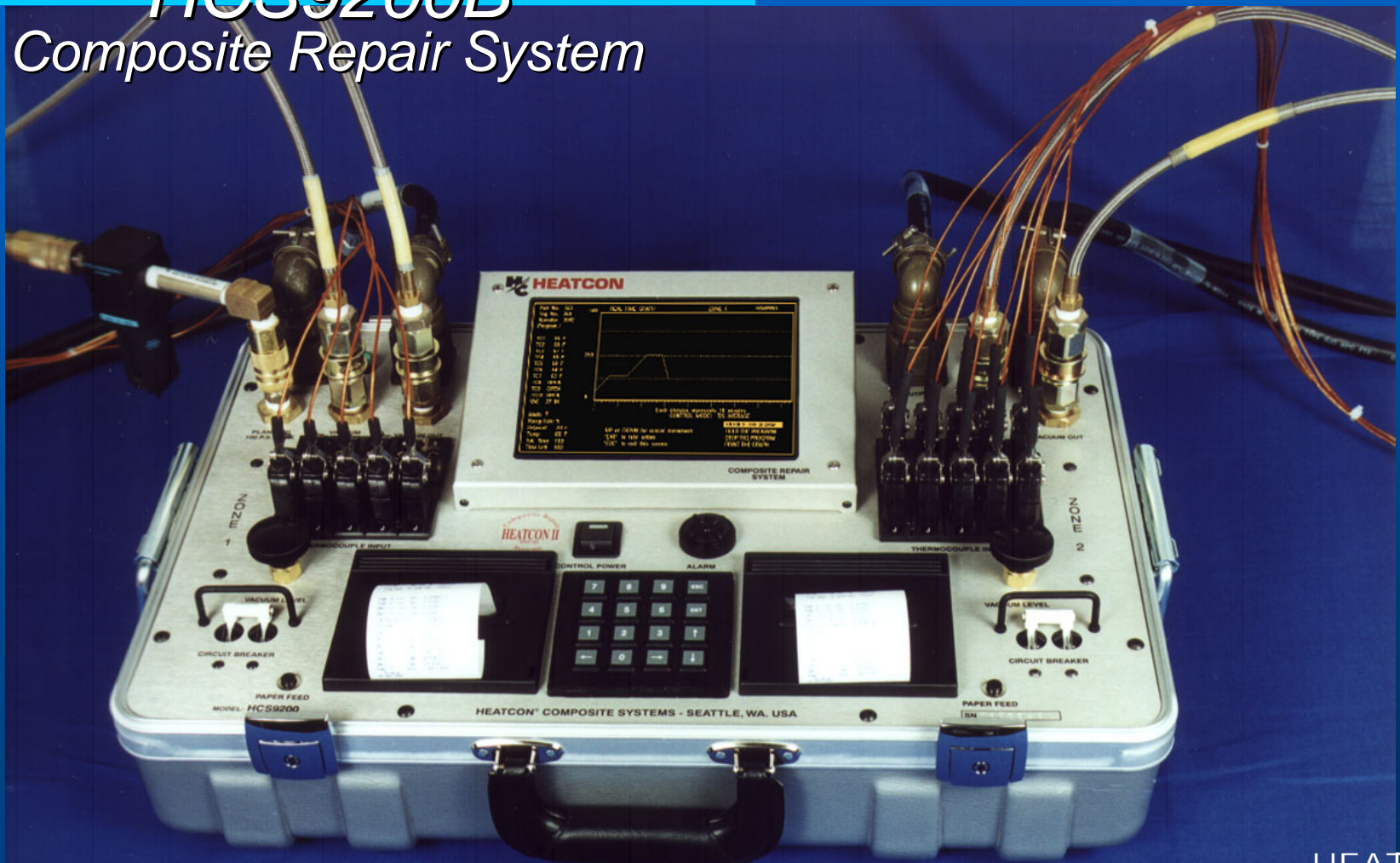
HCS9000B *Composite Repair System*



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HCS9200B

Composite Repair System



HEATCON® COMPOSITE SYSTEMS

HCS9000FL “Flightline” Hazardous Environment Composite Repair System



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HCS2046-02

*Phosphoric Acid Containment
System (PACS)*



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Partial Listing of Equipment Users

- **United Space Alliance**
- **Northwest Airlines**
- **U.S. Military (All branches)**
- **TAECO China**
- **Northrop Grumman**
- **Lockheed**
- **Boeing (Military and Commercial)**
- **Delta Airlines**
- **Alliant Techsystems**

The Hot Bonder of Choice for Major Airlines, Repair Stations and Military.

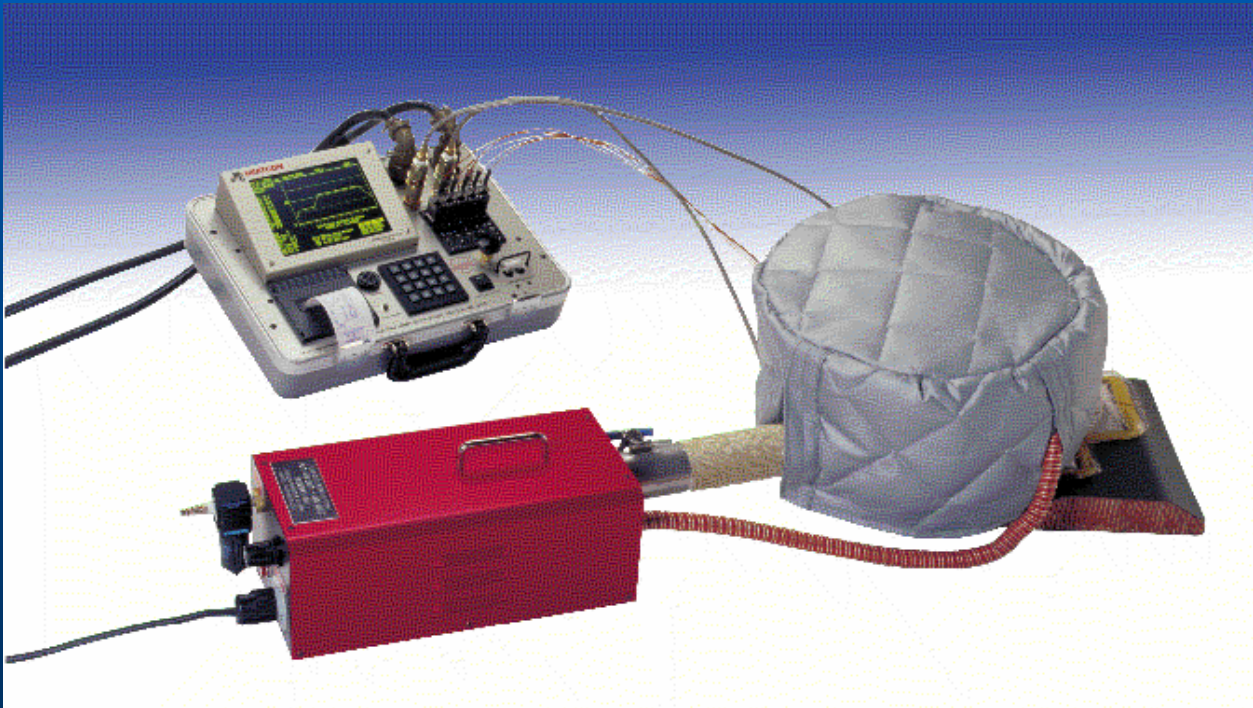
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Accessories

- **HCS2401-01 Portable Hot Air Composite Curing System**
- **Heat Blankets**
- **Vacuum Accessories and Generators**
- **Thermocouples and Accessories**
- **Composite Repair Tools**

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HCS2041 Hot Air Composite Repair System



HEATCON[®] COMPOSITE SYSTEMS

Heat Blankets



HEATCON[®] COMPOSITE SYSTEMS

Materials

→ **Small / Large Quantities**

→ **Dry Ice Shipments**

→ **Repair Materials**

* Film Adhesives

* Kevlar[®]

* Fiberglass Prepreg

* Resin

* Graphite Prepreg

* Honeycomb

→ **Consumable Materials**

* Bagging Film

* Breather/Bleeder Cloth

* Sealant Tape

* Release Film/Fabric

* Release Peel/Ply Nylon

* Flash Tape

→ **Complete Documentation – OEM Certification and MSDS**



HEATCON[®] COMPOSITE SYSTEMS

“Composite Repair Solutions”

- **Composite Repair Shop Packages**
 - * “One Stop Shop” for composite repair needs
 - * Long term supply contracts

- **Continued Product Development**
 - * Continued development of HCS9000/HCS9200 systems
 - * New heat blanket designs
 - * Customer driven products

- **Commitment to R&D, Technical Expertise**

- **Show us your application. There is a good chance we have worked with something similar before.**

HEATCON[®] COMPOSITE SYSTEMS

Research Projects

- **Comparative study - Heating methods for repair of composite structures**
 - * Heat blankets
 - * Heat lamps
 - * Hot air machine

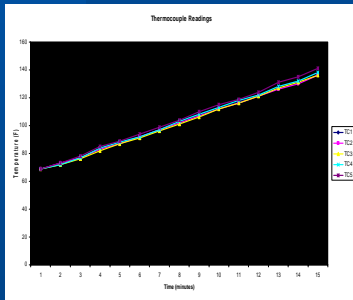


HEATCON[®] COMPOSITE SYSTEMS

Research Projects

→ Defining the next generation of composite repair equipment.

- * SRM requirements, FAA requirements, material requirements
- * Data storage, analysis, traceability



Advisory Circular
U.S. Department of Transportation
Federal Aviation Administration

Subject: REPAIR STATIONS FOR COMPOSITE AND BONDED AIRCRAFT STRUCTURE
Date: 11/15/96
Initiated by: AFS-350
AC No: 145-4
Change:

1. PURPOSE. This advisory circular (AC) provides information and guidance concerning an acceptable means, but not the only means, of demonstrating compliance with the requirements of Title 14 of the Code of Federal Regulations (14 CFR) parts 21, 43, 121, 125, 127, 135, and 145 regarding procedures and practices for repairs and alterations of structures consisting of metal bonded and fiber-reinforced materials (e.g., carbon, boron, aramid, and glass reinforced polymeric materials mentioned in AC 20-107, Composite Aircraft Structures). Consideration will be given to any other method of compliance the applicant elects to present to the Federal Aviation Administration (FAA). Mandatory terms used in this AC, such as "must," are used only in the sense of ensuring the applicability of these particular methods of compliance when the acceptable means of compliance described herein is used. This AC does not change regulatory requirements and does not authorize changes in, or deviations from, regulatory requirements.

2. DEFINITIONS. As used in this AC, the following definitions apply:

a. **Composite.** A combination of two or more materials (reinforcing elements, fillers, and composite matrix binders), differing in form or composition on a macro-scale. The constituents retain their identities, that is, they do not dissolve or otherwise merge completely into one another although they act in concert. Normally, the components can be physically identified and exhibit an interface between one another.