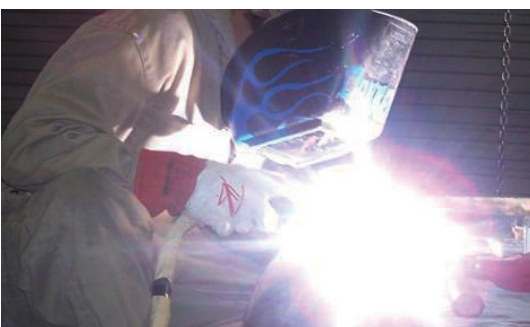
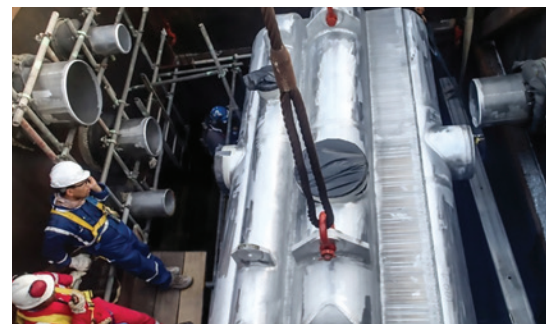


# Lifecycle OEM Service and Support



Brazed Aluminum Heat Exchanger Repair Services  
Air Cooled Heat Exchanger Parts & Repair Services  
Safety & Rescue Services  
Construction & Plant Relocation  
Specialty Services

[www.ChartLifecycle.com](http://www.ChartLifecycle.com)



Chart Lifecycle, Inc.

# Lifecycle – Fabrication & Construction



## Fabrication

- 51,000 s.f. shop (Indiana)
- 35,000 s.f. shop (Houston)
- High alloy fabrication
- Pipe spools, headers, manifolds, process skids, cold box fabrication
- Reformer, convection box, transfer line and miscellaneous spare parts
- Instrumentation and electrical assemblies
- Tank & vessel fabrications

## Construction/Specialty Services/Plant Relocation

- Cold box & column erection
- Installation of Hastelloy® liners in coal plant duct work
- Mechanical services
- Reformer & fired heater
- Piping skid design & fabrication
- Project planning & scheduling
- Welding aluminum, stainless steel, Inconel®, chrome alloys and other ferrous metals and peripheral piping
- Perlite removal/replacement
- Plant dismantle, refurbishment & relocation
- Ash and slurry systems
- Piping and supports
- Site supervision

## Quality Assurance

- ASME code "S" & "U"
- NBB&PVI "R"



# Lifecycle – Brazed Aluminum Heat Exchangers



The brazed aluminum plate fin heat exchangers (BAHX) in the cryogenic section of your plant are very specialized, highly unique, heat transfer equipment. We work together with our clients to evaluate and predict the current health & lifespan of your BAHX fleet across your facilities.

The Chart Lifecycle service offerings bring a proactive versus reactive approach to our clients that help mitigate the risk of plant downtime and the financial impact of lost production and revenue. Increased awareness and attention to operating data and process control help improve plant safety and reliability.

**Let us partner with you to achieve those goals!**

## **Services include:**

- Repair and maintenance including internal cleaning and leak repair
- Preventative and predictive maintenance
- DCS data analysis
- Thermal transient analysis
- Process simulation
- Plant optimization including start-up, operational process controls and process efficiency improvements
- Replacement units (including expedited schedules)
- Commissioning/start-up support
- Operator training
- Long term service agreements
- Extended warranty, preservation and storage including periodic site monitoring and inspection of equipment at storage site
- Operation and maintenance
- Shutdown and turn-around
- Spare parts

# Lifecycle OEM Service and Support

Chart offers a level of service through the entire lifecycle of our products that is unique, and unparalleled in the markets we serve. Through the identification of 7 product lifecycle stages we build relationships with plant stakeholders, from process and mechanical engineers through to operation and maintenance personnel, focused on the optimized performance and lifespan of Chart proprietary equipment.



Chart's mission critical equipment – **brazed aluminum heat exchangers** and **air cooled heat exchangers** – is at the heart of the cryogenic processes used in natural gas processing, LNG, petrochemical processing and industrial gas production.

# Lifecycle - Air Cooled Heat Exchangers

Chart Lifecycle is a one-stop-shop for all air cooled heat exchanger (ACHX) parts, servicing, retrofits and replacement units. We can provide immediate field assistance, inspections, and technical support no matter the severity of the issue.

You will have access to our huge parts inventory and direct factory warehouse access for anything we don't stock. Standard items can even be dispatched the same day. We offer total supply for Chart brands – Cooler Service Company, Happy Division, Tri-Thermal and Essex – extended inventory for other brands, including Conrad, Goodfellow and Western, and can supply parts for all other heat exchangers regardless of OEM.

Our Technical Sales and Field Service team has a combined 50 years industry experience, so you can be certain that your inquiry will be dealt with by an experienced member of our team, who understands the products and your needs.

Our trained engineers provide a full service scope, from helping you keep your coolers in perfect working order, by explaining the recommended

simple maintenance steps and the most common causes of performance deterioration, to tailored engineered solutions that upgrade their performance.

## Services include:

- Commissioning/start-up support
- Equipment check rates
- Like-kind replacement bundles (All OEMs)
- Redesigned tube bundles that fit existing structure
- Troubleshoot performance issues and engineer solutions
- Temperature/pressure re-rates
- Bundle re-tubes
- External and internal fin tube cleaning
- Thermal performance and air-flow testing
- ACHX equipment upgrades
- Field service support for replacing parts
- On-site customer training
- Spare parts



# Lifecycle – Safety & Rescue

## USA Response

USA Response provides complete safety supervision, low angle/high angle technical response, rope access, and confined space team requirements. We provide state of the art equipment in fully stocked trailers ready for immediate dispatch.

- Rope access technicians
- Confined space
  - Air monitoring
  - Standby on-site rescue
  - Hazard & safety recognition
- Training
  - Emergency Response
  - 30+ OSHA topics
  - Safety Supervisor
- Complete mobile facilities
  - Fully equipped trailers
  - Meets all OSHA/ANSI/NFPA standards
- Industries serviced
  - Petrochemical
  - Oil & gas
  - Industrial gases
  - Electric utilities
  - General construction



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*Chart Lifecycle, Inc.*