SUPERIOR

Cooling Solutions

Air Cooled Heat Exchangers for Gas Compression

CHART®

Cooler By Design.®

When Your Reputation Is On The Line So Is Ours.

Through our Air-X and Cooler Service Company brands Chart leads the way in the design and manufacturing of durable air-cooled heat exchangers.

Air-X-Changers
A Chart Industries Company

CSC

We provide the broadest product line in the industry, including engine-driven, electric motor-driven and hydraulic motor-driven configurations.

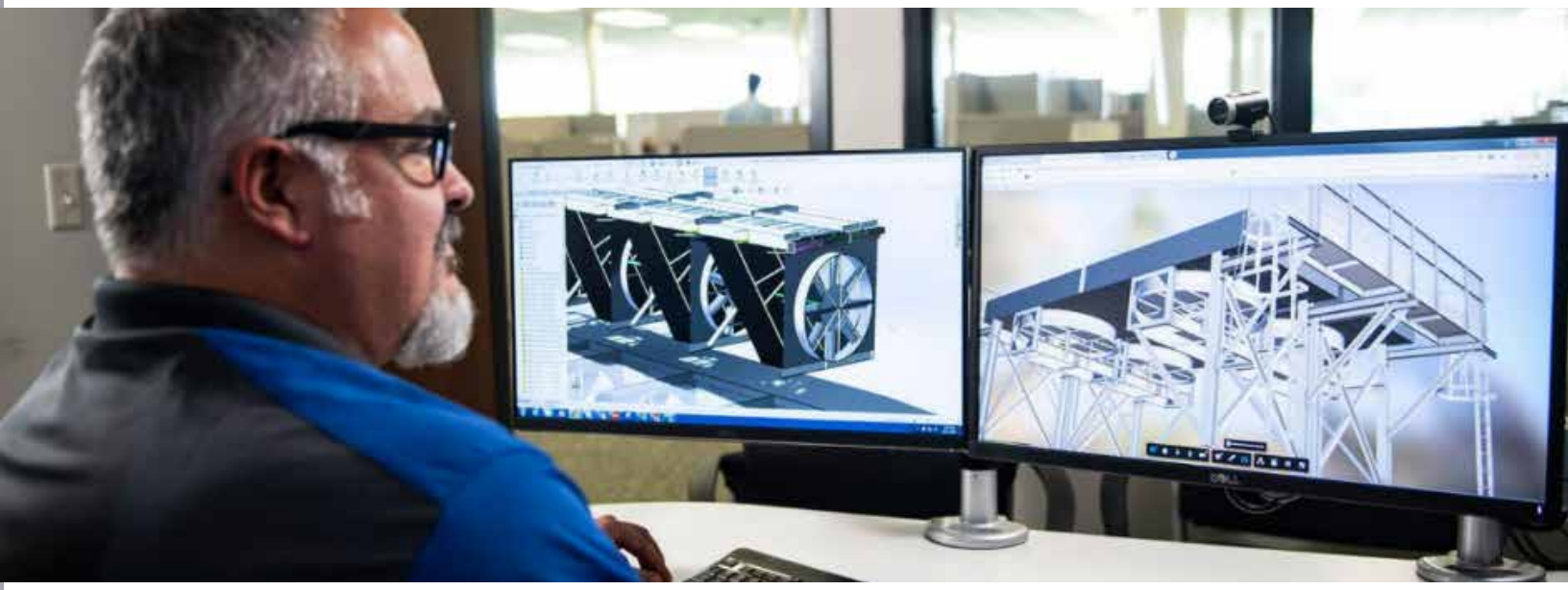
The Air-X-Changers Model EH is the world's most popular engine driven cooler.

Count on us to deliver.

- Principal engineering and manufacturing in Tulsa, OK
- Supplementary manufacturing in Beasley, TX
- Unrivalled after-sales support with site mobilization from multiple locations across the US

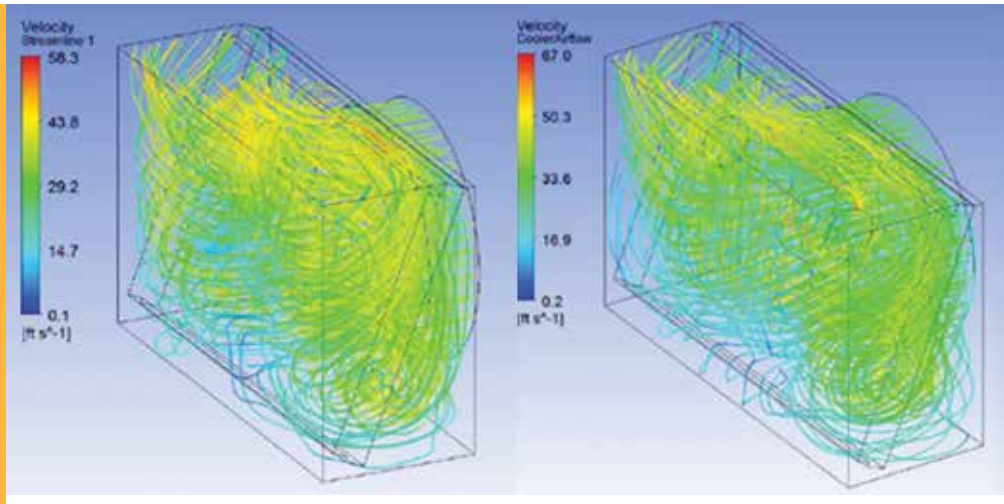
Superior Design & Engineering

Our products are “Engineered to Order” to ensure that your air cooler is designed and manufactured to exact specifications with the latest software available.



Choose Chart superior design, engineering, performance and service for lowest lifecycle cost of your cooler fleet.

- In-house proprietary software
- HYSIS/HTRI/AspenOne
- 3D modelling
- Computational Fluid Dynamics
- RISA 3-D structural analysis
- Finite element analysis
- Wind and seismic
- API hemispherical sound test



- Lowest capital cost
- Lowest operating cost (power)
- Lowest noise level
- Smallest footprint

Leading edge design and a fully streamlined system for maximum accuracy and responsiveness from quotation to delivery.

Capacity expansions and investment in our facilities have added covered floorspace and bespoke machine shops for headers and fans.

- Fan blade manufacturing
- Paint shop including enclosed paint booth and cranes
- Fixed and mobile cranes
- Hydro testing up to 6,000 psi MAWP
- Galvanized structures and metalized headers
- UG-99k compliance
- Standard tube length up to 66 ft

Model EH

The world's most specified engine driven cooler.

- Combines engine and compressor cooling in a single unit
- Engine drive and electric motor drive configurations
- Typical compression 100 to 2,000 HP

Unique sloped section provides greater cooling capacity and minimizes the cooler footprint.

Air-X-Changers
A Chart Industries Company

S Model – horizontal coil, forced draft cooler

- Single or multiple coils
- Standard tube lengths up to 28'
- Available in carbon steel, stainless steel, duplex or alloy
- Single fan design
- Engine or electric drive

Options

- Manual or automatic louvers with integral hail screens
- Removable bug screens
- Warm air circulation
- Surge tanks
- Ultra low-noise configurations

CSC

Model F

The original horizontal coil and multiple vertical fan cooler.

- Combines engine and compressor cooling in a single unit
- Fan diameters from 48” to 144”
- Engine drive and electric motor drive configurations
- Compression up to 3000 HP

Model F is the ideal solution for high-horsepower, engine-driven applications.

Air-X-Changers
A Chart Industries Company

M Model – horizontal coil, forced draft cooler

- Single or multiple coils
- Standard tube lengths up to 60’
- Available in carbon steel, stainless steel, duplex or alloy
- Single or multiple fan design
- Engine or electric drive

Options

- Manual or automatic louvers with integral hail screens
- Removable bug screens
- Surge tanks
- Ultra low-noise configurations

CSC

Model Z

Bolt-together horizontal coolers designed for high-horsepower and high specification applications.

- Fan diameters from 48” to 204“
- Compression applications up to 6000 HP
- Increased fan deck clearance for easier drive maintenance
- Electric motor or hydraulic-drive configuration
- Single- and multi-fan
- Forced or induced draft

Unique design fits most typical pipe-rack mounts.

Air-X-Changers
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H Model – horizontal coil, forced or induced draft cooler

- Single or multiple coils
- Standard tube lengths up to 70’
- Available in carbon steel, stainless steel, duplex or alloy
- Single or multiple fan design
- Electric motor with belt drive
- Widths tailored to meet plot requirements
- Minimal field assembly

Options

- Manual or automatic louvers
- Hail/bug screens
- Surge tanks
- Ultra low-noise configurations
- Heating coils
- Hydraulic drive
- Gear or synchronous belt drive

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Model VI

Vertical discharge, induced-draft, engine or elect motor-driven cooler.

- Sections are easily accessible, which is useful in applications requiring frequent section change-outs
- Fan diameters from 36” to 168”
- Engine-drive and electric motor-drive configurations
- Compression applications up to 3000 HP

Model VI combines engine and compressor cooling service in a single structure.

Air-X-Changers
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L Model – horizontal coil, induced draft cooler

- Single or multiple coils
- Standard tube lengths up to 28’
- Available in carbon steel, stainless steel, duplex or alloy
- Single fan design
- Engine or electric drive

Options

- Manual or automatic louvers
- Hail/bug screens
- Surge tanks
- Ultra low-noise configurations
- Warm air recirculation

CSC

Model VV

Skid-mounted, horizontal cooler used in a variety of applications.

- Fan diameters from 18” to 72”
- Engine-drive and electric motor-drive configurations
- Horizontal air flow may be either forced- or induced-draft to meet individual installation requirements
- Compression applications up to 450 HP

Model VV is designed to be compact and portable.

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V Model – horizontal coil, forced or induced draft cooler

- Single or multiple coils
- Standard tube lengths up to 10’
- Available in carbon steel, stainless steel, duplex or alloy
- Single fan design
- Engine, hydraulic or electric drive

Options

- Manual or automatic louvers
- Hail/bug screens
- Surge tanks
- Ultra low-noise configurations

CSC

Model H

Skid-mounted, horizontal cooler used in a variety of applications.

- Fan diameters from 24” to 144”
- Single- and multi-fan configurations
- Electric motor or hydraulic drive configuration.
- Typical compression HP: 2,000
- Forced or induced draft

Model H is an ideal unit for gas compression, lube oil cooling and process cooling.

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Summary of Cooler Models

Model Type (Air-X-Changers / CSC)		Draft	Drive	Fan Orientation	Standard Coating	Optional Coating
EH	S	Forced	Engine or Electric	Vertical	Paint	Galvanize/ Metalize
F	M	Forced	Engine or Electric	Vertical	Paint	Galvanize/ Metalize
Z	H	Forced or Induced	Electric	Horizontal	Galvanize/ Metalize	Paint
VI	L	Induced	Engine or Electric	Vertical	Paint	Galvanize/ Metalize
VV	V	Forced or Induced	Engine or Electric	Vertical	Paint	Galvanize/ Metalize
H	-	Forced or Induced	Electric	Horizontal	Galvanize/ Metalize	Paint

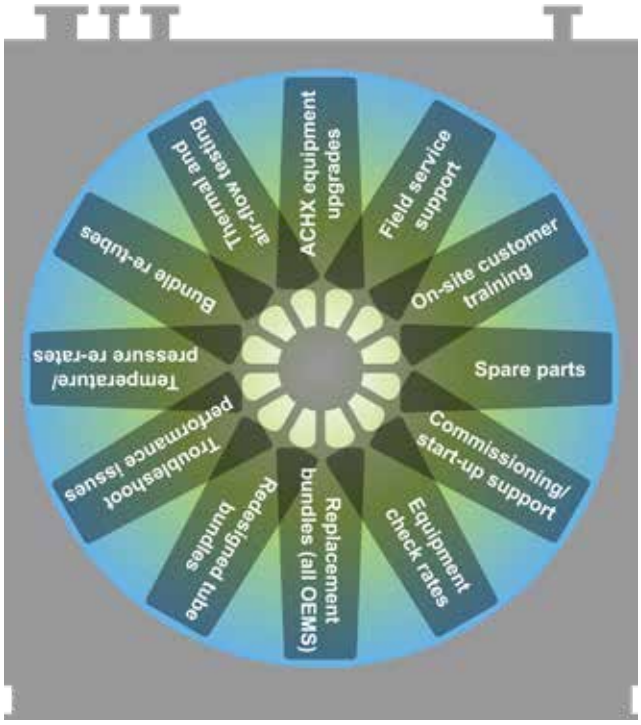
Aftermarket Service and Support

One-stop shop for all equipment servicing, retrofits, replacement units, and parts. We make the improvements that increase your productivity and drive your profitability.

Superior Chart Service

- You will always speak directly with an experienced member of our team so you can be certain that your inquiry is being dealt with by someone who understands the products and your needs
- Not only do we service our own brands, we service those of our competitors, both in the field and at our plants
- Service and site crew mobilization centers in Oklahoma, Texas and Indiana
- The industry's most extensive inventory of spare parts and direct factory warehouse access for anything we do not stock

Optimize the performance of your cooler fleet, regardless of OEM, with our advanced data mapping and diagnostic services. Our technicians come to your site.



Our full service and aftermarket capability is dedicated to keeping you online and productive. We respond to your needs promptly and efficiently.

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Air cooled heat exchangers are available for long term lease through Chart's Cryo-Lease program. Details on request.

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