



AMERICAN

COOLING SOLUTIONS

HD+

Premium Heavy Duty



Radiators & Cooling Systems

Truck | Bus | Construction | Agriculture | Forklift | Hydraulics



American Cooling Solutions is North America's trusted supplier of replacement cooling system components and parts for vehicles of all sizes and types

We Know Heat Exchangers

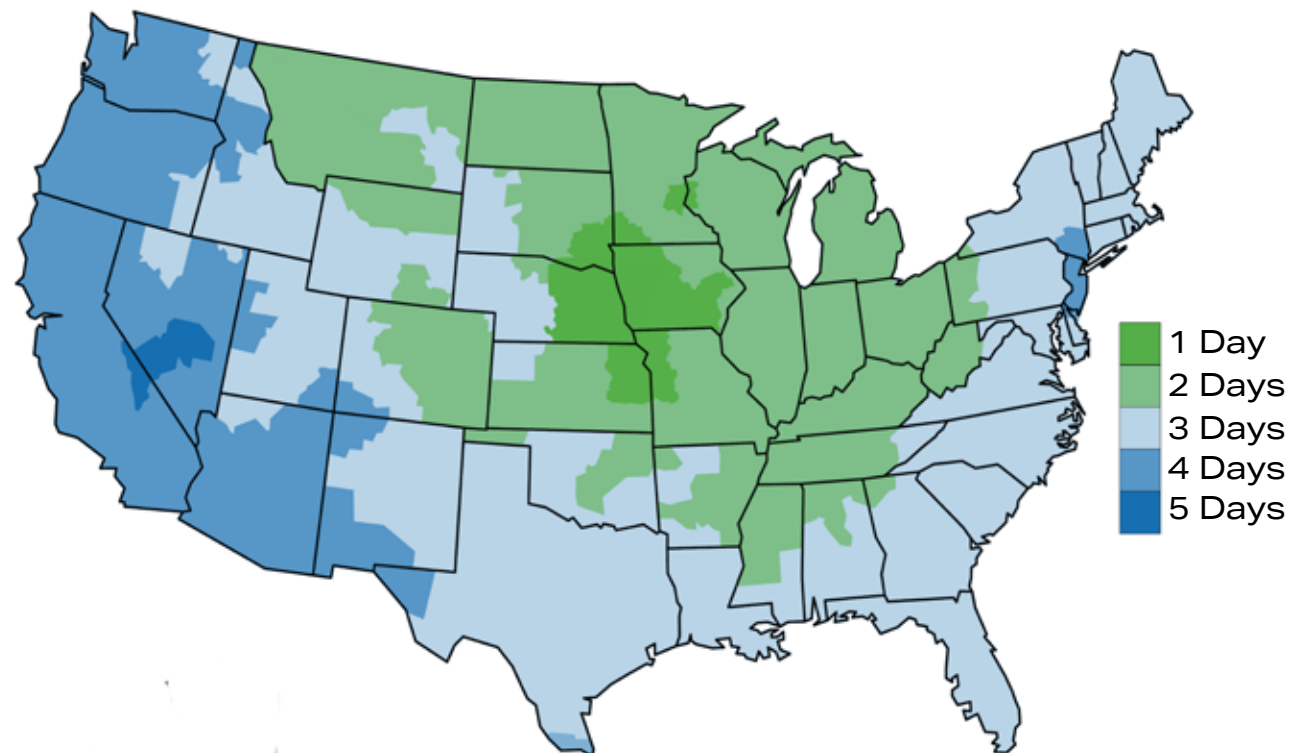
At American Cooling Solutions, engine cooling is what we do. For more than 45 years, we have been keeping equipment running cool and at its best. Working directly with manufacturers allows us to precisely design and ship OEM-quality replacement parts for equipment across several industries. From agriculture to construction and automotive to trucking, we're confident that our engine cooling components will perfectly fit and enhance your existing machinery.

We Cover All the Bases

Our wide selection of OEM replacement parts include matches for popular brands like John Deere, Case IH, Kenworth, Cummins, Freightliner, Ford, Mopar, Honda and more. We know how important it is for you to get your equipment up and running quickly and safely. Because of this, our support specialists are always standing by to assist you with any installation or troubleshooting needs. Never hesitate to contact us with any questions, and thank you for your continued support.

We Ship it Where You Want It, When You Need It

Conveniently located half way between New York and Los Angeles, we are able to ship to most of the country in three days or less.



Engineering & Manufacturing Capabilities

Engineering Capabilities

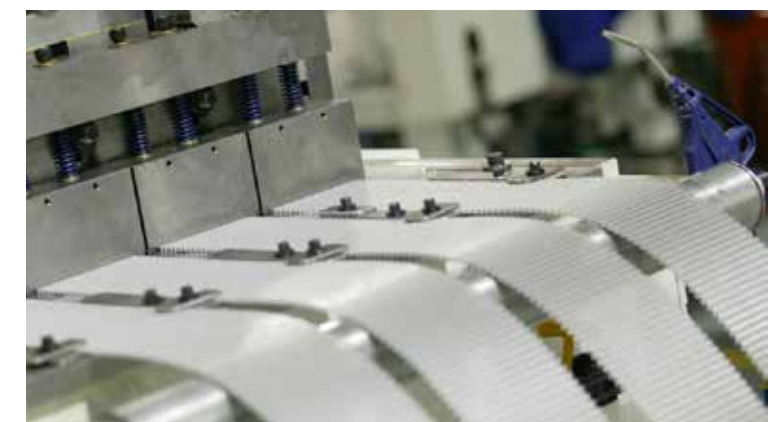
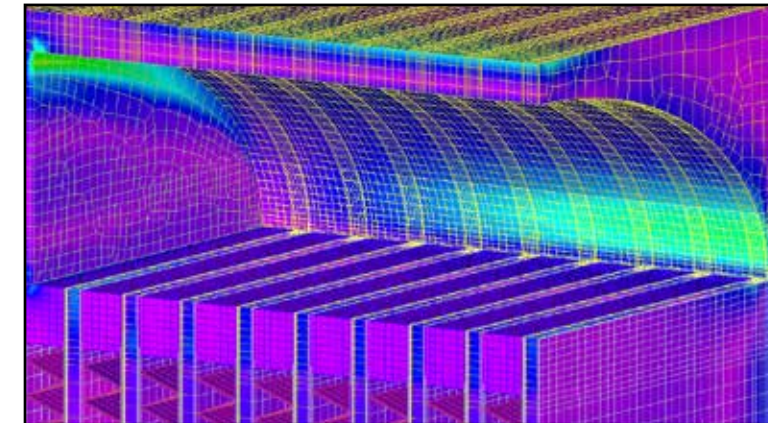
- ▶ 30+ Experienced Engineers on Staff
- ▶ Finite Element Analysis (FEA)
- ▶ Computational Fluid Dynamics (CFD)
- ▶ Advanced 3D Design
- ▶ Metallurgical Microscopic Analysis

Testing Capabilities

- ▶ Wind Tunnel - Fine tunes heat transfer and pressure differential to match OEM performance
- ▶ Pressure Cycle - Ensures durability and resilience under varying conditions
- ▶ Thermal Cycle - Evaluates performance across range of temperatures
- ▶ Vibration - Ensures our products can withstand rigors of real-world applications
- ▶ Corrosion - Products built to withstand challenging environments

Manufacturing Capabilities

- ▶ Vertically Integrated with Comprehensive In-House Steel & Aluminum Fabrication
- ▶ Round Tube Steel Cooler Production
- ▶ Vacuum Brazing
- ▶ Controlled Atmosphere Brazing
- ▶ Powder Coat Paint Line
- ▶ Fiber Laser- Sheet Feed Automation
- ▶ Pressure Decay, Mass Flow & 300 PSI Helium Testing
- ▶ State of the Art Robotic Welding
- ▶ CNC Tube Form Automation



Premium HD Truck & Bus Cooling

Charge Air Coolers (CAC)



HD+ Charge Air Coolers (CAC)

- ▶ Plain brown real cardboard boxes with foam packing inserts! You can open and reclose these!! Others use thin wood or honeycomb paper construction that doesn't hold up
- ▶ CAC's are bagged for cleanliness
- ▶ Stuffed tube cores for efficient heat transfer
- ▶ Cores have aero dynamic thick end round nose tubes
- ▶ Tanks are shot peened (clean and strong) and come with a black finish for an appearance that says quality throughout



HD+ Bolt Together Radiators (BTR)

- ▶ Shipped in unique modular crates that are easily opened and reclosed for a quick inspection or customer inquiry
- ▶ Full length puddled headers for the ultimate tube to header joint strength and reliability, a fundamental difference compared to other aftermarket competitors
- ▶ Powder coated side channels for extended corrosion protection
- ▶ Steel header tanks and expansion tanks are zinc treated before paint for interior corrosion protection
- ▶ Grade 8 serrated nuts and bolt lock mechanism, avoids self-loosening when in transit and inventory, preventing gasket leaks
- ▶ Isolators and hardware included that others omit to save cost



HD+ Plastic Aluminum Radiators

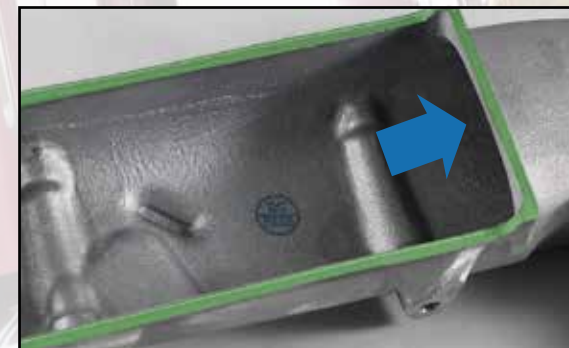
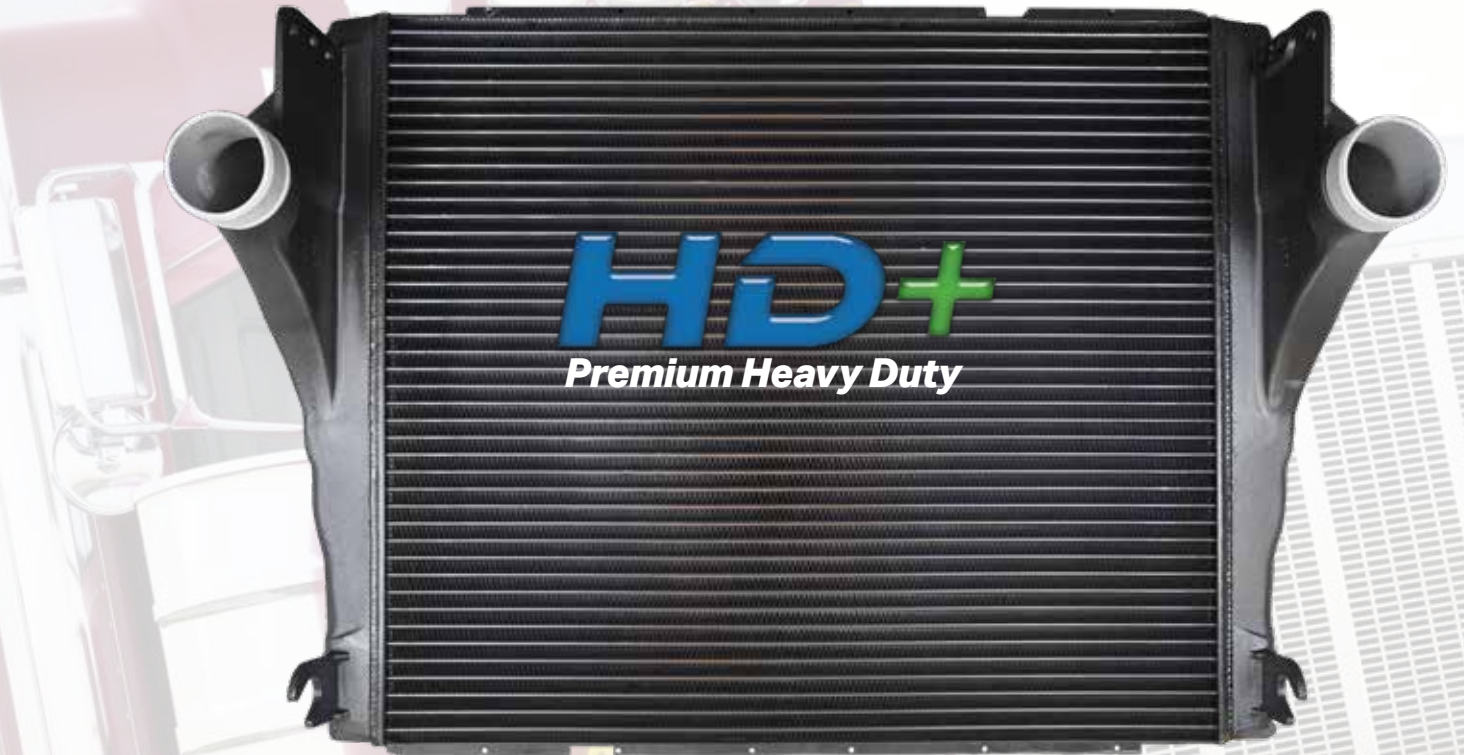
- ▶ Air Fins are hemmed along edges for increased core strength and overall radiator durability
- ▶ Tanks are double pressed and double crimped with steel reinforcement strip.
- ▶ Tubes inserts and double plate headers for maximum durability at the core corners
- ▶ Reinforced composite OEM grade tanks with metal reinforced inserts to ensure structural integrity
- ▶ Internal stainless stacked plate steel oil cooler for dependable strength and performance
- ▶ Mounting hardware components kits included in the box as required



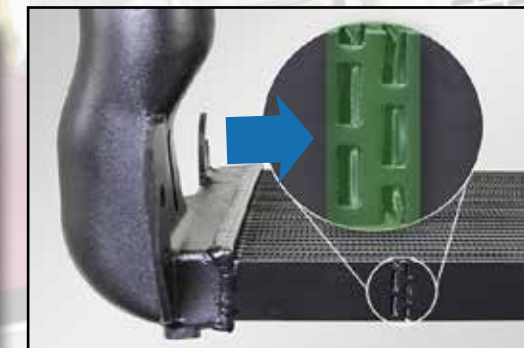
HD+ Condensers

- ▶ Direct OEM fitment.
- ▶ All makes / models application coverage
- ▶ Large selection of high efficiency parallel flow
- ▶ Select coverage of heavy duty tube & fin construction ideal for extreme off-road conditions

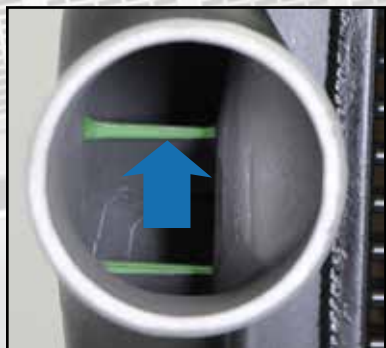
American Cooling Solutions Heavy Duty Truck Charge Air Coolers are engineered and built to out last and out perform any other cac on the market today. every cooler is factory tested prior before its packed in a custom engineered shipping box. **mounting hardware component kits included in each box as required.** all american cooling solutions hd charge air coolers are covered by a **2 Year Limited Warranty!**



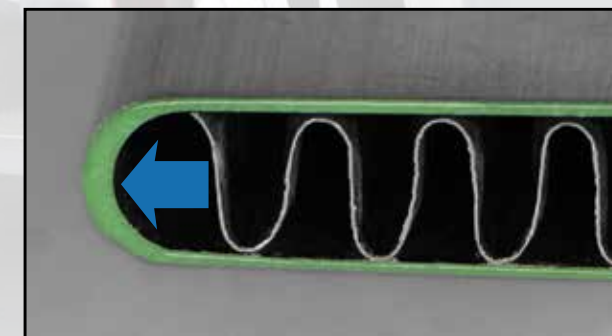
Cast Aluminum Tanks; 5.5mm+ Wall Thickness Throughout are Shot-Blasted and Inspected



Side Plate Expansion Joints Engineered to Manage Core Growth Stresses



Internal Wind Vanes Ensure Proper Air Flow Distribution Inside the Core



Strong, Efficient Extruded Tubes Feature Extra Thick Round Nose for Aerodynamic Durability



Select Models available in Robust Bar and Plate Construction

Bolt Together Radiators (BTR)

American Cooling Solutions HD+ Bolt Together Radiators are engineered and built to out last and out perform any other bolt together radiators on the market today. every radiator is factory tested prior to being packaged in a custom engineered shipping box. mounting hardware component kits included in each box as required. all american cooling solutions hd+ bolt together radiators are covered by a **2 Year Limited Warranty!**



Zinc Coated Steel Header and Expansion Tanks for Extended Corrosion Protection



Grade 8 Fasteners with Serrated Nut and Bolt Locking Mechanism That Won't Shake Loose



Welded Construction and Powder-Coat Finish on Side Frame and Tanks



Packed in a Custom Engineered Break Down Shipping Box!

Now featuring DIMPLED TUBES on our most popular models!

ACS offers dimpled tube technology on many of our best selling BTR radiators as **standard equipment**, providing extra performance and value.

Low Clog / Performance

For Feed Lot & Off Road Applications



- ▶ Low Clog Design, Easily Cleaned & Maintained
- ▶ 5 Row Copper Brass Core & Dimpled Tubes for Additional Cooling Power
- ▶ Open Air Flow Flat Fins - 8 Fins Per Square Inch
- ▶ Best quality HD+ is Unequaled for Cooling, Extended Life and Durability
- ▶ Can be used for Cross Country Long Hauls
- ▶ Fully Puddled Reinforced Headers & Hemmed Fins
- ▶ All Metal Bolt Together Radiator
- ▶ Zinc Treated Steel Surge & Core Tanks for Extended Corrosion Resistance
- ▶ Durable Powder-Coat Finish

There is a growing demand for the older trucks with Low-Clog, feedlot style core for ag and offroad applications. Feed lots and silage grinding operations dot the landscape across the United States. Our In-Line, flat fin design and wide spacing allows for minimal clogging and easy cleanout, while the reinforced construction provides superior strength and resistance to extreme environments e.g. Mining & Oil Fields. Dimpled tubes give them extra capacity for on-highway cooling as well. Everything needed for installation is in the box: Gasket, CAC rubber isolation mounts and nuts as applicable. No need to buy parts separately.

High Efficiency Performance Radiators for HD Trucks

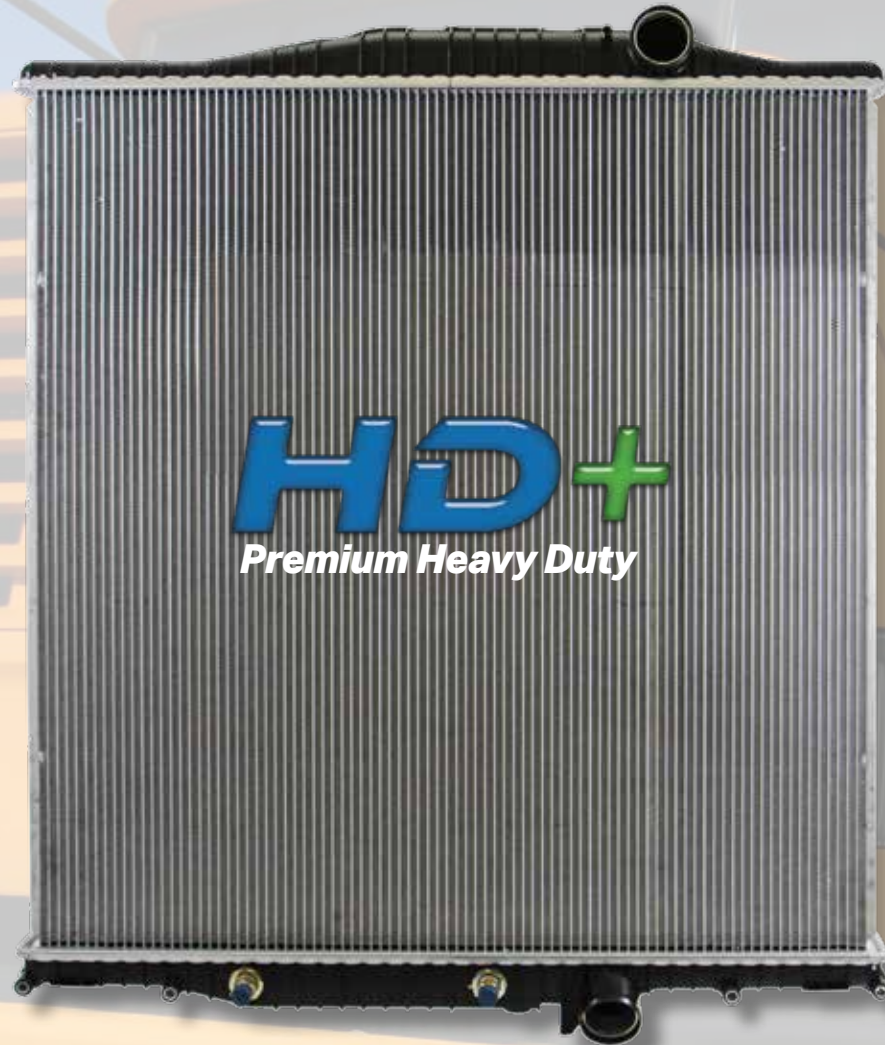
American Cooling Solutions has taken our HD+ Premium Heavy Duty line to a whole new level with our HP+ High Efficiency line of heavy-duty truck cooling systems. Precision engineered for those customers needing additional cooling power for those long mountain pass crawls or high desert crossings. HP+ is a IN-STOCK solution that yields up to 35% additional cooling! HP+ features an increased fin density and extra dimpled tubes for noteworthy performance on your in-dash temperature gauge, when it counts the most!

- ▶ Up to 35% More Cooling For High Heat Situations
- ▶ Ideal for Steep Terrain Hauls and High Temps
- ▶ Increased Fin Density and Extra Dimpled Tubes
- ▶ Durable Powder-Coat Finish
- ▶ Ideal for HP Tuned Engines

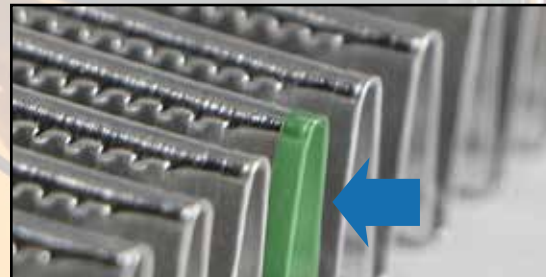


Plastic Tank Radiators (PTR)

American Cooling Solutions Heavy Duty Truck Radiators are engineered and built to out last and out perform any other radiator on the market today. Every radiator is factory tested prior to being packaged in a custom engineered shipping box. **mounting hardware component kits included in each box as required.** all american cooling solutions HD+ radiators are covered by a **2 Year Limited Warranty!**



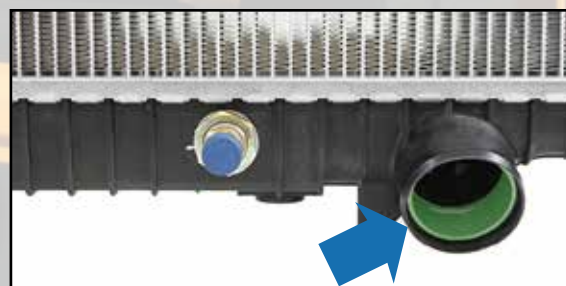
Tanks are Double Pressed with Full Secondary Steel Reinforcement to Ensure Long Term Durability



Air Fins are Hemmed Along Both Edges for Increasing Core Strength and Overall Radiator Durability



Tube Inserts and Double Plate Header at all Four Corners for Maximum Strength and Durability



Reinforced Composite OEM Grade Tanks with Metal Reinforced Ports to Ensure Structural Integrity



Mounting Hardware Kit

AC Condensers

American Cooling Solutions heavy duty truck AC Condensers are engineered and built to out last and out perform any other condenser on the market Today. Each condenser is factory tested prior to being packaged in a custom engineered shipping box. All American Cooling Solutions HD+ Condensers are covered by a **2 Year Limited Warranty!**



Parallel Flow

- ▶ Highly efficient and **ideal for all new modern refrigerants.**
- ▶ Multiple micro-tubes to **maximize heat transfer.**
- ▶ Built to be **direct bolt-in replacements.**

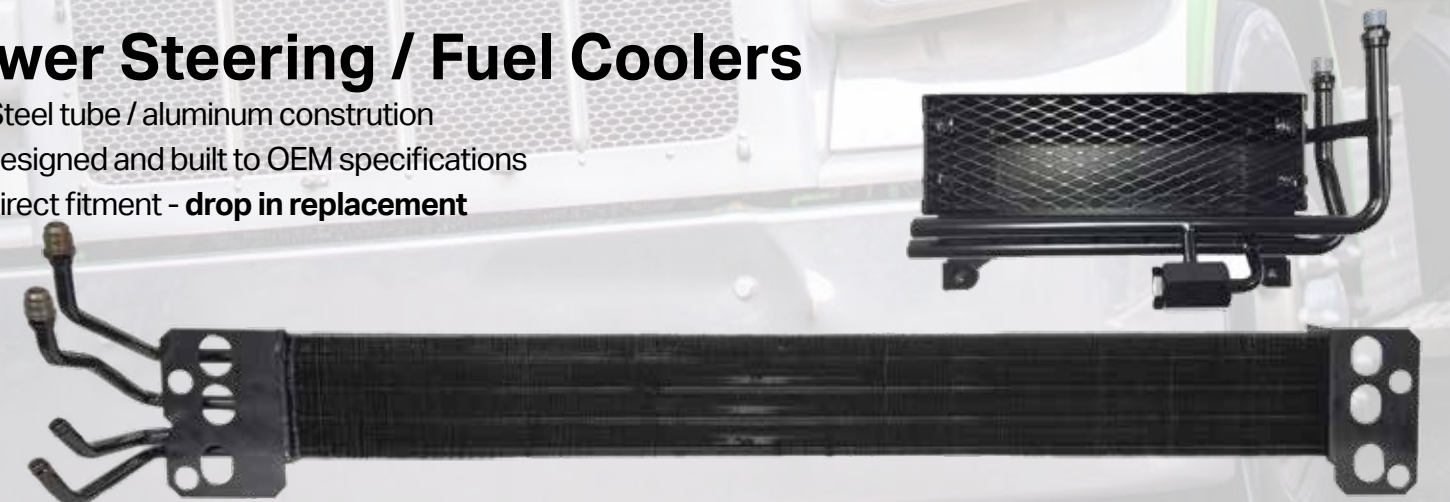
Tube & Fin

- ▶ Our tube and fin condensers are produced with the **strongest construction** and maintain **high thermal transfer efficiency.**
- ▶ **HD+ USA+** Condensers use **thermal conductive** steel tube for refrigerant line.
- ▶ Robust construction is **ideal for off-road applications** such as agriculture, industrial and mining.
- ▶ Our round tube design provides flexibility, strength and **increased life cycle.**



Power Steering / Fuel Coolers

- ▶ Steel tube / aluminum construction
- ▶ Designed and built to OEM specifications
- ▶ Direct fitment - **drop in replacement**



Classic Copper



Why Classic Copper?

American Cooling Solutions has become America's premier supplier of HD+ Premium Heavy-Duty products for legacy agricultural tractors and equipment. The broad ACS product line has a range of IN STOCK models with select coverage dating back to 1939! While there are many reasons to maintain

Feature ▶ Copper & Brass construction preserves the OEM coolant chemistry of the tractor.

Benefit ▶ Correct chemistry is one of the most overlooked aspects in old tractor cooling systems, but getting it right provides the user a long service life of the radiator. Mixing metals like aluminum in a cooling system for a tractor built before WWII can have unexpected consequences.

Feature ▶ Our manufacturing methods utilize current metal working technology with classic materials including deep drop lip headers, perforated tube to header joints and dimpled fins.

Benefit ▶ Longer life, increased strength, and improved heat transfer performance with less plugging

Feature ▶ Copper brass construction allows repairability when the time comes, or an incident occurs.

Benefit: ▶ Repairs can be done with common soldering methods allowing these units to be maintained for future generations.

American Cooling Solutions has an array of coverage from classic copper to current day high horsepower tractors. We stock 550 agricultural heat transfer SKU's covering thousands of applications. Choose American Cooling Solutions to be your source for HD+ Premium Heavy-Duty products, Superior Product Knowledge, and Service.

Modern Aluminum Coolers



Why Modern Aluminum?

American Cooling Solutions offers a wide range of contemporary aluminum products for the Agricultural market. We use the latest in aluminum brazing technology for applications from low HP to high HP. Brazed aluminum offers both life cycle and heat transfer advantages, as opposed copper brass construction. We offer a wide variety of aluminum products such as Fuel Coolers, Condensers, Transmission Coolers, Engine Oil Coolers, Radiators, and Charge Air Coolers.

Aluminum Oil Coolers ▶ ACS offers single shot brazed coolers that meet OEM specifications, as well as robust Bar and Plate applications.

Aluminum Charge Air Coolers ▶ Our CAC offerings are made all aluminum with quality castings and built to perform in harsh environments, in addition to a unique line of round aluminum tube Charge Air Coolers for harvesting equipment.

Aluminum Radiators ▶ Heavy duty all aluminum radiators are offered for extreme use applications, as well as plastic tank aluminum core versions. All of our products are 100% tested at the factory and guaranteed to meet OEM heat rejection performance.

Skid Steer Loaders



We ARE Skid Steer Cooling Central!

American Cooling Solutions comes with 45+ years of experience in precision heat exchanger experience. We have applied our collective knowledge and capabilities to produce ACS designed, ACS built line of radiators, oil coolers and charge air coolers for skid steers of any brand.

**Bobcat | Case | Case IH | John Deere | New Holland
Hydraulics | Kubota | Ford**



www.americancoolingsolutions.com | 866-736-7335

Forklift / Material Handling



Copper Brass

- ▶ Direct OEM Fitment
- ▶ **100% leak tested** at the factory: Every unit is tested for leaks before being released to packaging. Install with full confidence right from the box.
- ▶ Two styles of fins at **multiple densities** to cover every situation.
- ▶ On applicable models, **stacked plate oil coolers** for dependable strength and performance.
- ▶ **Hardware components included** in the box as required.
- ▶ All boxes are plain brown packaging, allowing for private labels and clean appearance.
- ▶ Inside, the **product is protected** by a bag or corrugated core face cover along with well placed foam packing inserts. All kits are immobilized to prevent damage during transit.
- ▶ Engineering and Quality control in the USA. Our engineering staff, located in South Dakota, **directs and controls all aspects of quality & product specifications**. Our South Dakota assets include an on-site OEM testing and validation lab including; wind tunnel, pressure and thermal cycle testing, and metallurgical analysis among others.

Plastic Aluminum

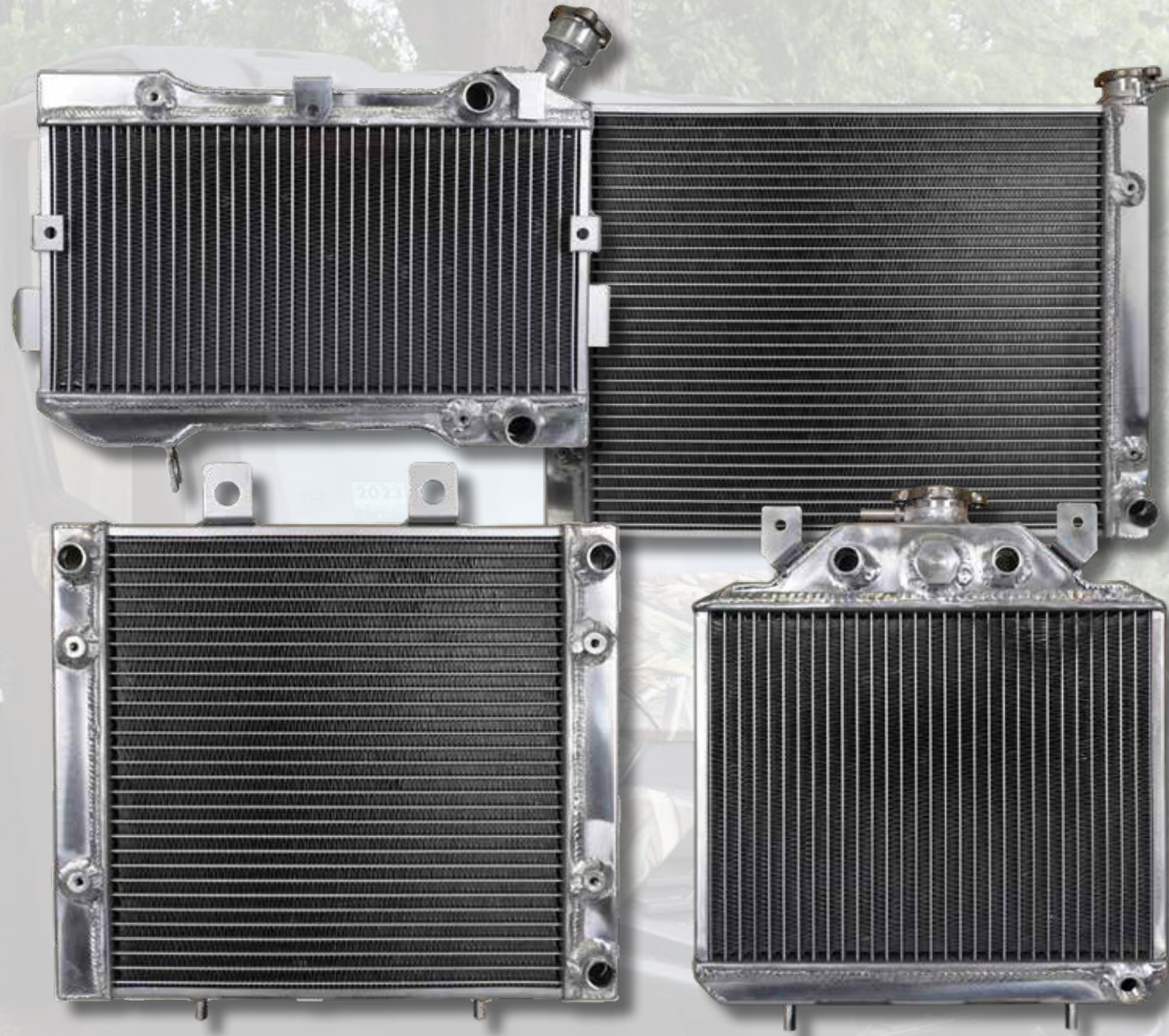


Lincoln Welder Replacement Radiator

- ▶ Fits 200 / 250 AMP Lincoln Welders
- ▶ Copper Brass Construction
- ▶ Fits Multiple Lincoln Welder Models



www.americancoolingsolutions.com | 866-736-7335



Performance Radiators for 500+ Models

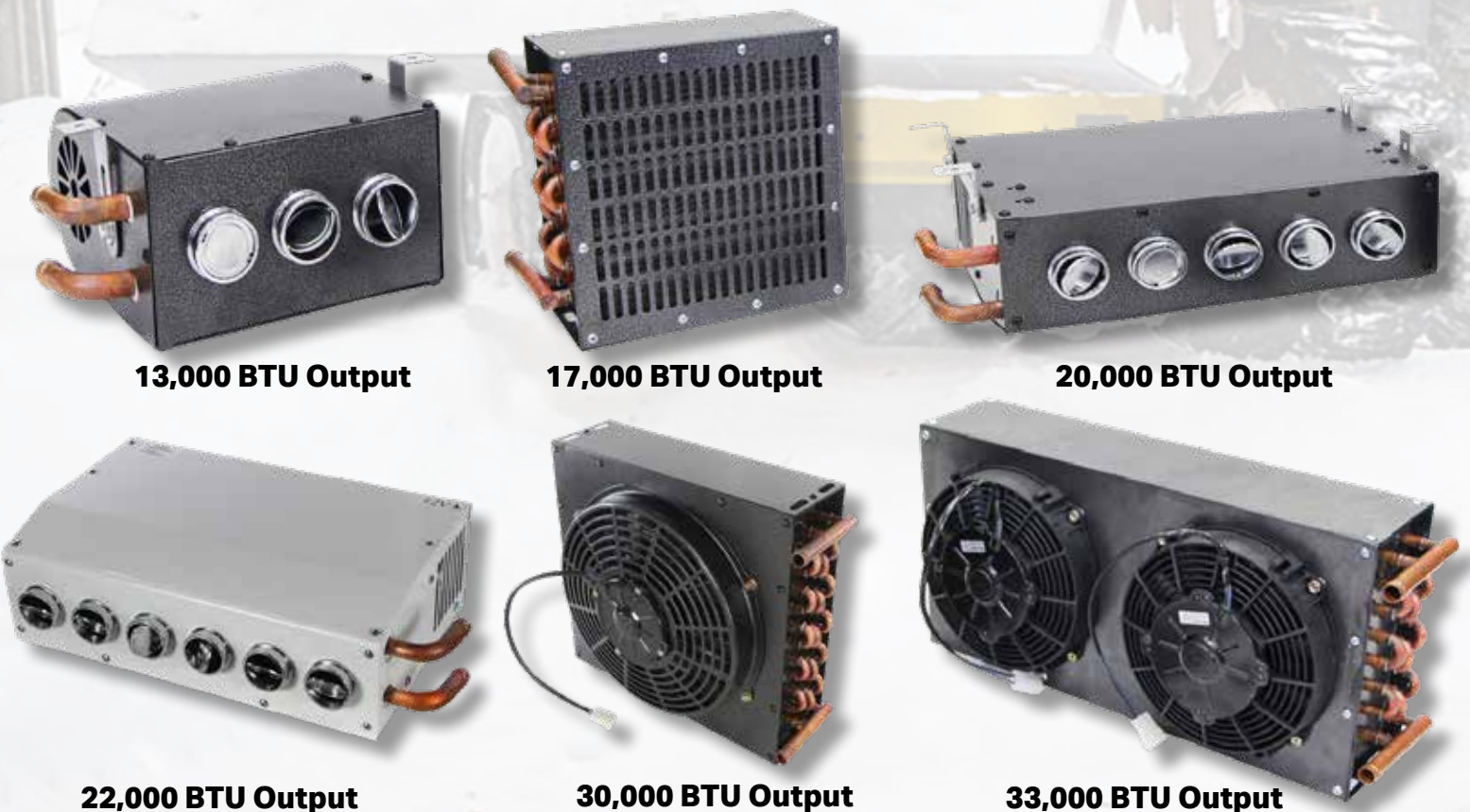
**Arctic Cat | Can-Am | Honda | Kawasaki | Polaris
Suzuki | Yamaha**

American Cooling Solutions All Aluminum, TIG welded ATV & UTV Radiators are Engineered and Built To Out Last and Out Perform Any Other Radiator on the Market Today. Our Auxiliary Heaters are designed for easy installation and built to move engine heat where you need it, when you need it. All American Cooling Solutions ATV/UTV Radiators and Auxiliary Heaters are Covered by a **1 Year Limited Warranty!**



Cold Feet? Get Auxiliary Heat!

American Cooling Solutions is your source for premium quality, auxiliary cab heaters for skid steers, tractors, vans, UTV's & any other vehicle that has both hot water coolant and 12/24V DC power to run the fan. Our wide selection includes a variety styles of different BTU ratings to fit your space. No matter which type of vehicle you operate, our cab heaters will keep your toes warm and toasty this winter season!



13,000 BTU Output

17,000 BTU Output

20,000 BTU Output

22,000 BTU Output

30,000 BTU Output

33,000 BTU Output

Hydraulic Oil Coolers

Hydraulic Cooler Selection - Simple as 1, 2, 3!

Hydraulic cooler selection process doesn't have to be intimidating, typically it can easily be accomplished with one of three methods depending on the situation presented. The customer service team at American Cooling Solutions can direct you through the process or our web-based Fluid Power Cooling guide takes you step by step. We also offer prepackage systems for Skid Steers Auxiliary Cooling, Planters, Tractors and Industrial applications like Cranes Etc.

Selection Methods

1. Replacing An Existing Cooler

1. Measure your cooler Length, Width & Depth, or calculate the the cubic inches of your existing core and match to one of our off-the-shelf products
2. Verify the flow rate of your system is within the range of the specified flow rate of the cooler selected (GPM)
3. Verify your hose size and connections (adapters may be required depending on your application)

2. Size a Cooler by Available Area

1. Select a cooler that fits in your desired area and allows adequate air flow

$$\text{Distance the core face needs to be from obstructions} = \frac{\text{Length} \times \text{Width}}{(\text{Length} \times 2 + \text{Width} \times 2)}$$

2. Determine if you need a fan equiped cooler. Select from either electric or hydraulically driven fan modules, or install a universal fan onto the selected core
3. Verify the flow rate of your system matches to the specified flow rate (GPM)

3. Select a Cooler Based on Required Heat Dissipation

1. Reference our Fluid Power Cooling catalog Technical Selection (see QR code below) Guide for steps to calculate and heat transfer curves
2. Verify the flow rate of your system is within the range of the specified flow rate of the cooler selected (GPM)
3. Verify your hose size and connections (adapters may be required depending on your application)



Scan to View our Full Line Fluid Power Cooling Catalog

Fluid Power Cooling



OC-40 Series

Small and versatile, ideal for small to medium sized equipment.



OC-50 Series

Wide variety of sizes and fitting combinations, ideal for mobile and industrial equipment.



OC-60 & OC-70 Series

Our most versatile cooler family, available in a wide range of sizes for all types of applications including skid steers, forestry, and construction equipment.



DC-60 Series

The DC-60 Series utilizes our popular OC-60 coolers with on-board fans 12V or 24V for applications with limited air flow.



DC-70 Series

Our DC-70 Series is built on the workhorse OC-70 coolers with dual on-board fans 12V or 24V for applications with limited air flow or high heat generation.



HC-60 Series

The HC-60 Series utilizes with our OC-60 coolers but feature hydraulically driven on-board fans for applications with minimal electrical capacity.

Air Compressor After-Coolers



Our line of **Belt Guard Coolers** covers air flow ranges from 35-100 CFM and they are designed to mount directly to the common air compressors on the market.



Rotary Air Compressor Coolers
These coolers are designed to cool both the air and oil circuits for rotary screw air compressors, and range from 5-30 HP applications.

Liquid to Liquid Oil Coolers

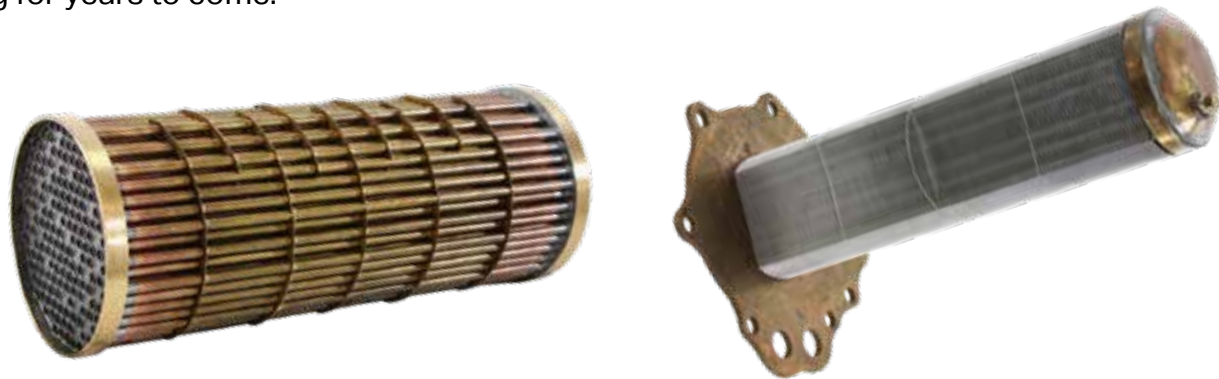
Aluminum Liquid to Liquid Coolers



American Cooling Solutions is a leader in providing liquid to liquid engine and transmission oil coolers. Our all aluminum construction resists corrosion and electrolysis while still maintaining the OEM performance required for cooling in the harshest conditions.

Copper Brass Tube Bundles

American Cooling Solutions has coverage for the most common tube bundles on the market. Built using OEM specifications and test data, these coolers are designed to keep legacy equipment alive and operating for years to come.



Stainless Steel Coolers

Using the latest brazing technology, ACS offers quality replacement products for both oil coolers and aftercoolers. Most products are offered with gasket kits and all sealing surfaces are machined after brazing to ensure a perfect seal.



www.americancoolingsolutions.com | 866-736-7335

Fans / Miscellaneous

DC Fans

Long life DC electric fans available in both 12V and 24V. Can be added to coolers without fans for added air flow. Increases the efficiency in oil coolers relying on only vehicle movement for air flow. Available in 7", 10", 14" and 16" models.



Fan Controller with Temp Sensor



Our Fan Controller is programmed specifically for hydraulic oil applications and works with both single and dual fan applications. Ramped power control reduces the electrical load on the system. In dual fan applications the #2 fan will engage only after the 1 fan has reached 100%. The control module is designed for remote mounting and includes long lead wires for the fans and temperature sensor. and comes with an adapter to mount directly into the oil cooler tank.

Hoses / Hose Clamps

American Cooling Solutions offers all common sizes and shapes of Radiator and Charge Air Cooler hoses and hose clamps. All hoses are manufactured to ASTM and SAE standards and are tested to withstand OEM temperature and pressure requirements.



Radiator Caps

American Cooling Solutions carries caps to fit dozens of radiators including Farmall, Allis Chalmers and Case IH as well as a large variety of universal fit caps.



www.americancoolingsolutions.com | 866-736-7335



Proudly Providing OEM Quality Replacement Parts For These Brands:

AGCO ♦ Allis Chalmers ♦ Allison ♦ Bluebird ♦ BMW ♦ Bobcat ♦ Case ♦ Case IH ♦ Chrysler
Caterpillar ♦ Cummins ♦ Detroit Diesel ♦ Farmall ♦ Ford ♦ Freightliner ♦ GM ♦ HumVee ♦ International
Isuzu w John Deere ♦ Kenworth ♦ Kubota ♦ Mack ♦ Massey Ferguson ♦ Mopar ♦ Navistar
New Holland ♦ Oliver/White ♦ Peterbilt ♦ Sterling ♦ Thomas Bus ♦ Toro ♦ Volvo ♦ Workhorse

▶ **Radiators**

▶ **Condensers**

▶ **Charge-Air Coolers**

▶ **Fluid Power Coolers**

▶ **Evaporators**

▶ **Oil Coolers**



**Scan to Visit www.americancoolingsolutions.com
866-736-7335**

45+ Years of Experience & Expertise

At American Cooling Solutions, thermal transfer is in our blood. We've been designing and manufacturing heavy duty, OEM quality engine cooling products for over 45 years. Our state-of-the-art engineering, fabrication and manufacturing facilities are located in Canton, SD, USA.

All of our products are engineered and built for optimal performance and quality.