Your Source for Mobile Cooling Solutions

Custom Engineered Engine Cooling Systems

- Complete Cooling Packages including radiator, charge air, fuel, transmission and hydraulic cooling
- Integral thermal bypass valves available
- Constructed of brazed aluminum, copper tube and fin, or steel
- Modular designs that provide the most compact packages available

Open and Closed Loop Fan Control Systems

- Customized fan control systems that are designed to maximize available engine horsepower, provide quieter operation and improve fuel consumption
- Proportional, load sense hydraulic fan drive systems
- Hydraulic Reversing Fan Drives
- Cost effective on/off hydraulic fan drives
- Complete line of fan drive controllers
- Electric Fan Drive Systems
- Controllers
- Temperature & Pressure Sensors
- High Pressure Auxiliary Cooling

A Gold Partner Distributor of Thermal Transfer Products

www.sun-source.com • 800-953-9264 • CoolingSolutions@sunsrce.com
**T-BAR** is a proprietary extrusion design and one of the most clever cooling technologies available on the market today. Highly engineered on the front end, equals simplicity on the application end. **T-BAR** has unrivaled strength and rigidity, which ensures reliable field performance. **T-BAR** is factory zinc coated for cathodic protection, seam/leak free extruded and ultimately reliable.

**T-BAR** is manufactured with Alloy 1100 aluminum micro channel and bars with patented in-house tube-to-bar brazing process using a Nocolok CAB (Controlled Atmosphere Brazing) brazing technology furnace. Because our tubes are a solid extrusion, **T-BAR** is very robust—with no tube seams to fail and leak. Core sizes can range in core height/width from 1 sq.ft. to 6 sq.ft. in various geometries. Core depths can vary from 1.25 inches to 5.5 inches. Cooling capability of these cores can range from 50-1000+ HP engines.

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**Flexible Cooling Solutions**

With **T-BAR** technology, our OE-focused Application Engineers are ready to solve the most challenging system requirements for non-standard cooling modules.

Using proprietary **T-BAR** technology, our engineers design cooling solutions for rigorous performance and design requirements. We can custom-engineer solutions for even the most extreme requirements. **T-BAR** is the perfect fit for OEMs with low to medium production volume and high performing needs.

- Superior performance - Aluminum has up to 25 percent higher heat transfer capacity in comparison to a traditional copper/brass cooling package.
- Rugged structure
- Zinc coated for salt spray & salt air resistance
- Handles high viscosity fluids
- No tooling requirements
- Seam/leak free
- Fully pressure and leak tested, assembled and packaged.
- **T-BAR** provides numerous tube geometries to optimize performance for radiators, charge air coolers (CAC), oil coolers and after-coolers.

**T-BAR** components can be mixed and matched to provide multiple circuit cooling within one core—or multiple cores combined to form a module.

Thermal Transfer Products can supply complete cooling packages, including in-house designed framing, fan shroud, finger guard, expansion tank, etc.

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Visit us at www.sun-source.com
**P-BAR** is the most efficient design solution in heat transfer today, utilizing an aggressive hot side turbulator. Perfect for all fluid medias in diesel engine cooling applications demands, while offering remarkable heat rejection levels for new Tier systems. **P-BAR** is a cost effective solution and excels in core combination packaging.

**P-Bar** heat exchangers are manufactured entirely of aluminum alloys. Our patented in-house brazing process uses aluminum alloys and our modern brazing furnace. The core components are available in a wide variety of types and sizes. These robust coolers have high working temperatures and operating pressures. Units can be manufactured with any connection type and mounting elements.

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**Thermal Transfer Products**

An **API Heat Transfer** Company

**Industry Standard**

- Superior performance – Aluminum has up to 30% higher heat transfer capacity in comparison to traditional copper/brass cooling package
- Air-side fin design minimizes fouling and static pressure ensuring long-term, reliable performance
- Welded Aluminum fittings/ports and manifolds ensure structural integrity
- Standard ports – SAE, NPT and BSPP ports available
- High performing turbulator
- No tooling charges required
- Customized units are available to meet your specific performance requirements
- Modules are pressure and leak tested, assembled and packaged
- P-BAR provides core geometries for radiators (water-air), oil coolers (oil-air), air coolers for engines (CAC), air coolers for compressors (air-air), fuel coolers, air-oil welded combos, and turn-key engine cooling modules
- Complete cooling packages can be equipped with fan, motor, finger guard, expansion tank, etc.

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With **P-BAR** technology, we offer an industry accepted standard solution for the majority of engine cooling requirements.
AUXILIARY-TRANSMISSION SHELL & TUBE COOLERS
- Many shell and tube competitor interchanges (See cooling product team for assistance)
- Compact size and low cost
- Heat removal up to 500 HP
- Oil Flow over 200 GPM
- High efficiency finned bundle design

STEEL OIL COOLERS
- Steel, copper, copper/nickel, or stainless steel construction
- Brazed plate construction
- Internal fins
- Diameters up to 10 inches
- Lengths up to 12 feet

TEMP SENSORS & SWITCHES
- SunSource has access and stock many different brands of temperature switches to complete any cooling system.

STEEL OIL COOLERS
- Rugged Steel construction
- High Pressure application capabilities
- Easy customization for customer requirements
- Many models stocked in our facility

ELECTRONIC FAN DRIVE SOLUTIONS
- Sealed Motors and Electronics
- Sensorless Sine Wave Vector Control
- Heavy Duty VA89 Shroud
- 800 to 4100 RPM Variable Speed Control
- Reverse Airflow Capability

- Powered by a 28 vdc alternator
- Reversible fan to clean debris from cooling package
- Long life, brushless, sensor less fans
- Rugged aluminum fans
- CAN capable and onboard diagnostics

Visit us at www.sun-source.com