A global leader in manufacturing highly engineered heat transfer technologies

Custom-Engineered Cooling Technology for OE Mobile Equipment

T-BAR technology incorporates radiator, hydraulic oil and charge air coolers into one package — all custom-engineered to fit OE performance and design requirements.
**Rugged & Refined**

**T-BAR** brings you the most refined cooling technology on the market today. Engineered with minimal components in an ideally simplified configuration, **T-BAR** has unrivaled strength and rigidity which ensures **durable performance**. **T-BAR** is a flexible design, high performing, and a cost-effective aluminum solution.

**T-BAR MANUFACTURING PROCESS:**

1: CUT EXTRUDED ALUMINUM TUBING
2: CUT SPACER BARS
3: STACK ASSEMBLE TUBE & BARS TO FORM CORE UNIT
4: FLUX CORE UNIT TO PREPARE FOR BRAZING

**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 patented **T-BAR** technology our engineers design mobile equipment 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 variety needs. (EAU: ~50 – 1200)
**Cores:**

- Oil Cooler
- Radiator
- Charge Air Cooler
- Welded Radiator/Oil Cooler Combo
- Bolted Radiator/Oil Cooler Combo

T-BAR is manufactured with Alloy 1100 aluminum micro channel and bars in our 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.

T-BAR 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 20-550+ HP engines.

**Turn-Key Cooling Modules:**

- Fully pressure and leak tested, assembled and packaged.
- T-BAR provides 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.

Thermal Transfer Products applies the expertise and experience gained from 40 years manufacturing high-quality heat transfer products.
Superior performance
Aluminum has up to 25 percent higher heat transfer capacity in comparison to a traditional copper/brass cooling package.

Rugged structure
- Resistant to fouling
- Resistant to salt spray and salt air
- Compact

Flexible mounting and port configuration
- Flexible core geometries
- Great dollar value per BTU

Cooler Specifications
Fluid compatibility:
- Petroleum/mineral oils
- Oil/water emulsion
- Phosphate ester
- Water/ethylene glycol
- Heated air

Core ratings:
- Maximum static psi: 300+ psi
- Maximum inlet temperature: 300+ degrees F

Quoting & Build Process
1) An application data sheet will need to be provided to Thermal Transfer Products to begin the quoting process.
   To include:
   - OE Engine data/Hydraulic Oil data/Fan data/Application data
   - Dimensional size of available envelope for cooling module
   - Sketch layout to show port locations and type

2) Thermal Transfer Products will provide initial predictive theoretical performance data sheet and dimensional size after required data is assembled.

3) After performance data approval by customer, a budgetary quote and prototype costing will be submitted for review.

4) A prototype order will trigger Thermal Transfer Products to design a top level drawing for customer signature approval.

5) Approved drawing design will start the manufacturing process. Lead times vary dependant on data discovery & complexity of cooling module. A lead time will be offered when quoted.

Contact Thermal Transfer Products
Look to T-BAR for low volume, custom-engineered units and modules for all of your OE cooling requirements.

Thermal Transfer Products
A ThermaSys’ Company

We COOL what you POWER

5215 21st Street
Racine, Wisconsin 53406-5096

TEL: (262) 554-8330
FAX: (262) 554-8536

E-MAIL: TTPSales@thermasys.com