

NU WAVE[®] FIN

Superior Technology
at Work

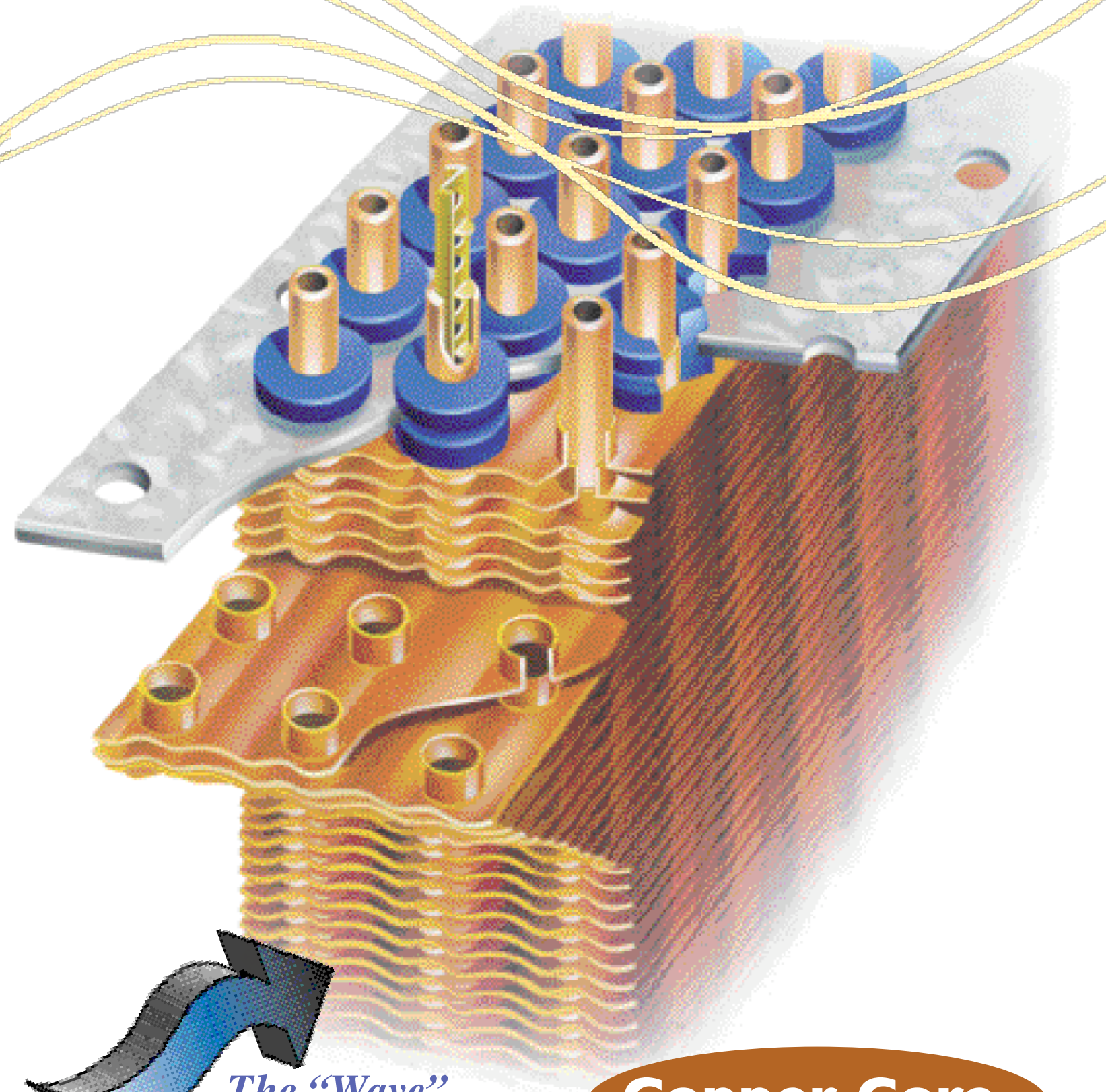


Copper Core

LIMITED

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NU WAVE[®] FIN



*The "Wave"
of the Future*

Copper Core

LIMITED

9 Superior Reasons why you can rely on the Nu Wave® Core

Independent Lab Tests

Independent lab tests have put the **Nu Wave®** core through its paces. In one test, the basic design was mounted on a shock table, water circulating through it at 15 psi. It was subjected to 15 million mechanical shocks, one right after another; 24 hours a day. Close examination showed no sign of wear or deterioration.

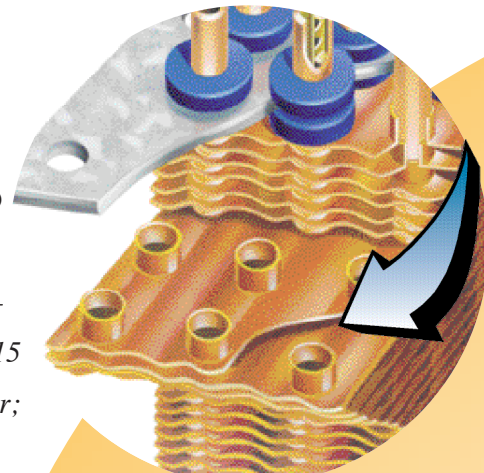
In another grueling test, the **Nu Wave®** core was cooled to 40°F and then coolant at 240°F was pumped through it for the kind of thermal shocks rads need to withstand even arctic conditions. After 3,000 cycles – equivalent of a cold morning start 7 days a week, 52 weeks of the year for almost 8 years – close examination revealed no damage. Conventional radiators can fail after 200 to 300 cycles. 750 is considered exceptional. **Nu Wave®** reached 3,000 without a fault.

Demands on today's cooling systems are unprecedented.

Engines produce more heat, yet the volume of the cooling system and the size of the radiator have been reduced. Often air flow is restricted to improve aerodynamics. Adding to the challenge is the fact that heat exchangers for charge air; condenser, transmission and other coolers can be stacked. The need for greater cooling efficiencies has never been higher.

Nu Wave® Heat Transfer Efficiency

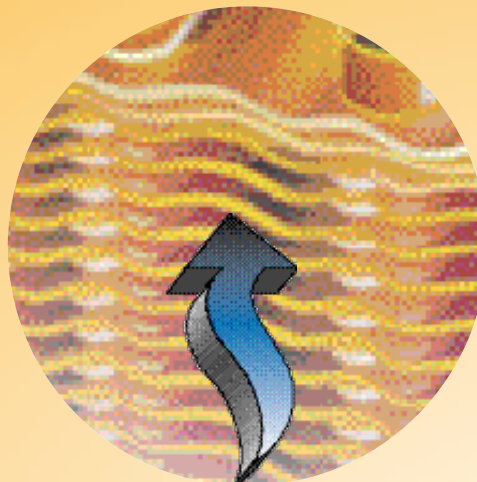
• **Nu Wave®** fin design maintains an unrestricted laminar air flow to boost air circulation and reduce turbulence vs. louvers and dimples which boost heat transfer but weaken the fins and add restrictions.



1

Overall component design:

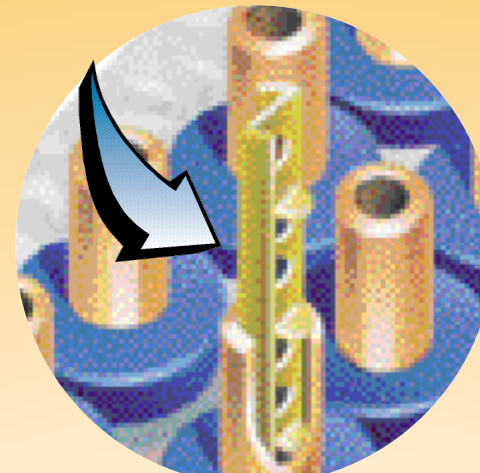
Core can be brought back to original specs time and time again



2

Nu Wave® fin:

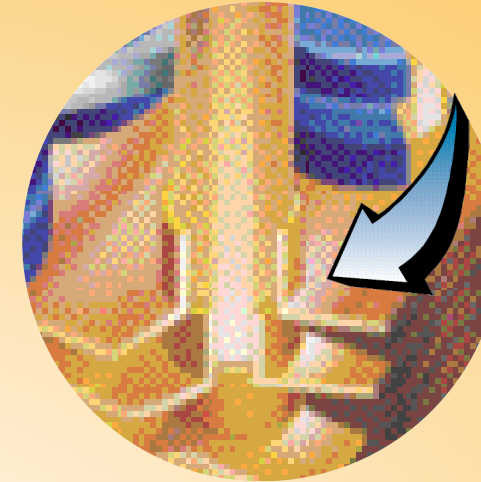
Greater air contact surface and air flow for improved heat transfer



3

Turbulators:

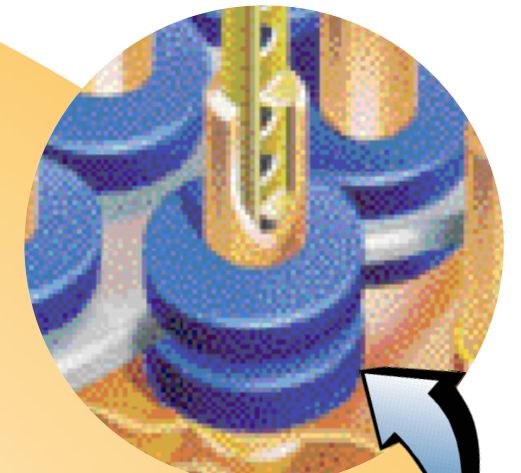
Improved heat transfer efficiency and removable for service



4

Solderless tube/fin joint:

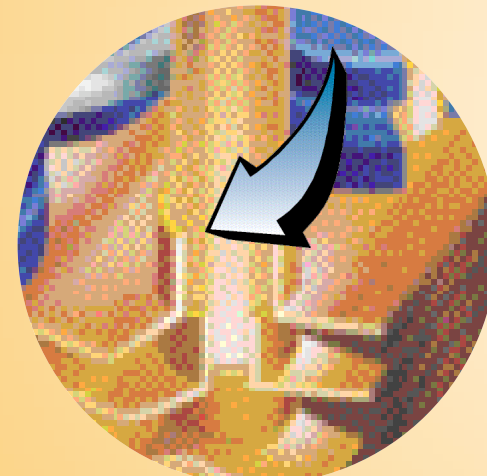
No solder to crack means longer life



5

Silicone grommets:

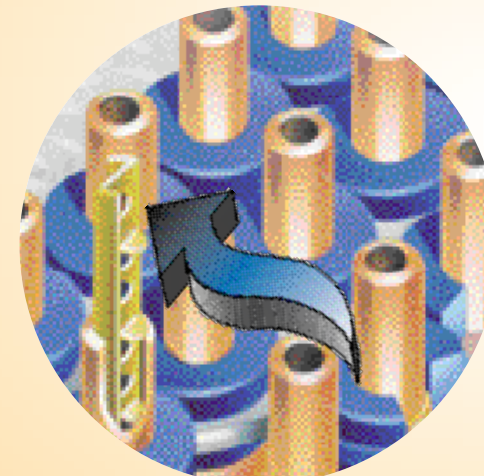
Replace solder eliminate solder bloom, and stand up to thermal and mechanical shock



6

Extruded fin collars:

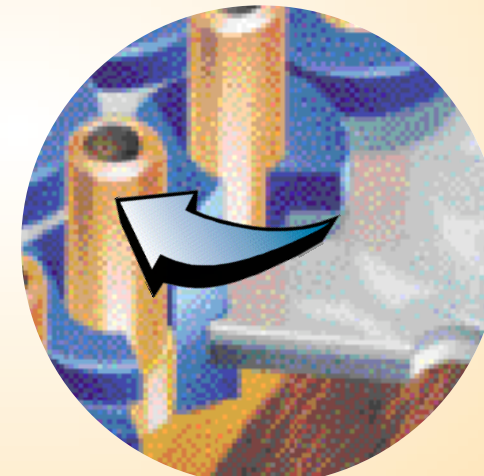
Form built-in protection for coolant tubes



7

In-line tube pattern:

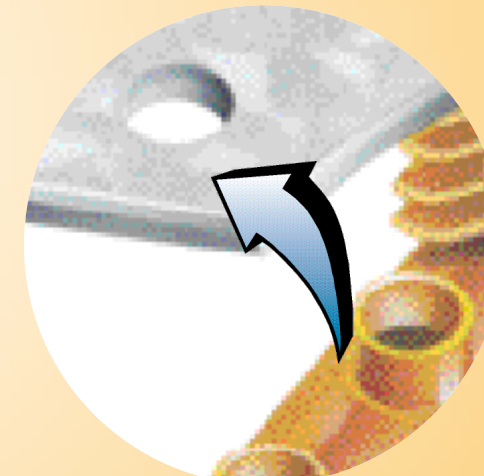
Greater airflow, easier cleaning, and reduced clogging



8

Heavy copper tubes:

Boost coolant flow and thicker walls offer long life



9

Galvanized steel headers:

Greater strength and longer life

- The in-line tube pattern permits greater air flow, improves cleaning and reduces clogging vs. staggered or canted tube patterns which reduce air flow, reduce cleaning characteristics, and boost clogging.
- Turbulators keep the coolant flow in contact with tube walls to improve cooling efficiency and can be easily removed for service.

Nu Wave® Flexibility

- Fins can be copper, brass or steel.
- Copper for peak heat transfer properties
- Brass or steel for extra strength or for use in corrosive conditions.

- The core can have as many rows as the application requires.
- **Nu Wave®** cones can be manufactured in single (not sectioned) cores as large as six feet square (36 square feet).

Nu Wave® Durability

- Heavy gauge copper tubes are much thicker than conventional tubes.
- Extra protection of extruded fin collars means no exposed tubing, and longer life.
- Silicone grommets mean no solder; which means no solder bloom to block tubes and restrict coolant flow. They also provide greater flexibility to withstand heat/cold cycles and vibration.

- Silicone grommets are individually replaceable to add infinite life to our patented tube/header joint.
- Thick galvanized steel header plates eliminate corrosion and cracking problems.
- Optional stainless steel header available

- Mechanically expanded tube/fin joint is also solderless and therefore corrosion resistant. Coupled with the heavy gauge fin it offers greater strength to resist fin folding from debris or during high pressure rinse.
- Our patented modular component design means the core can be brought back to original specs any time, time and time again.