



DOMESTIC SKIVED FIN HEAT SINK MANUFACTURING

Traditional extruded heat sinks can reach their practical performance limits, but moving directly to liquid cooling can add cost, complexity, and infrastructure requirements that may not be necessary for every application. Wakefield Thermal's air-cooled skived fin heat sinks provide another option.

WHAT IS A SKIVED HEAT SINK?

A skived fin heat sink is manufactured by cutting and forming thin fins directly from a solid bar of aluminum or copper. **The fins and base remain part of the same continuous piece of material.** This eliminates the bonding layer between these parts while allowing us to create fin geometries that can exceed the practical aspect-ratio limitations of conventional aluminum extrusion. **The result is a heat sink capable of combining thin fins, tight fin spacing, high fin density, and tall fin structures** to increase the surface area available for air-cooled heat transfer.



WHY WAKEFIELD THERMAL?

Wakefield is the only US company to produce domestic extrusions, skived fin and bonded fin heatsinks under one roof. We can determine cost/performance benefit against each technology based on design and expected volumes. Wakefield can perform thermal analysis to predict thermal performance and can optimize solutions around thermal performance/cost. **Providing you with shorter lead times and supply chain security, all while reducing your exposure to foreign tariffs.**

ALUMINIUM OR COPPER?

Wakefield can support skived fin solutions in both aluminum and copper, giving engineers another way to balance thermal performance, weight, cost, and application requirements.

APPLICATIONS



MOTOR DRIVES

Remove heat from power electronics in VFDs, servo drives, and other industrial motor control systems while maintaining an air-cooled design.



IGBT COOLING

Manage concentrated IGBT heat loads with high fin density and increased heat-transfer surface area.



WELDING EQUIPMENT

Manage heat from IGBTs, rectifiers, and other high-power components in industrial welding systems.



UPS SYSTEMS

Provide reliable thermal management for power conversion electronics in UPS systems used in data centers, industrial facilities, and other critical environments.



INVERTERS

Dissipate heat from high-power switching components in industrial, renewable energy, transportation, and power conversion applications.



RECTIFIERS

Provide high-performance air cooling for AC-to-DC power conversion equipment where conventional extruded heat sinks fall short.