

## FORKLIFT CORE TYPES

Northern Forklift Radiators are offered in various core configurations and construction methods. In some cases there are multiple options per application. This summary of core types is intended to act as a guide and brief description including the benefits of each core type.

## **COPPER CORES:**

Older legacy lift trucks and special purpose radiators are constructed from copper and brass. They generally offer good heat transfer and have the ability to be readily repaired. Special configurations are available in copper construction.





## **ALUMINUM CORES:**

Most late model lift trucks now incorporate a radiator constructed of plastic tanks and an aluminum core. This new technology is stronger, reduces weight, and has increased performance in both heat transfer and life cycles.



Square Wave, Non-Louvered



CORES TYPES: ALL OF THE BELOW CORE PATTERNS ARE MADE IN BOTH COPPER AND ALUMINUM BUT PLEASE NOTE FLAT FIN IS ALMOST ALWAYS COPPER WHEN USED FOR FORKLIFT RADIATORS.

**FLAT FIN** is used for Industrial applications because of its strength and resistance to clogging. It comes in a variety of tube alignments and fin spacing to accommodate any purpose. Inline tube and open spacing provide the ultimate core for extreme dirty conditions i.e. "Cotton or Feedlot Core". Inline is less efficient with heat transfer than other flat fin designs like staggered tubes.

**CORRUGATE V FIN (SERPENTINE)** is the most common fin and comes in both louvered and non-louvered configurations. Most forklift radiators are non-louvered. V Fin is highly efficient at heat transfer and can be produced efficiently at lower production costs. The advantage to a non-louvered fin is its ability to not catch dirt and debris but loses some cooling ability. All V fins work best in clean air environments.

**CORRUGATE U FIN** is a rounded nose combination of the V fin and has the waves of the Square wave combining strength, non-clogging properties, and ease of manufacture. The U fin has good heat transfer and has the ability to be cleaned with ease.



**SQUARE WAVE** is an industrial fin type that is made by stamping rather than rolling. Although more expensive to produce, the flat peaks increase tube surface contact and provide excellent heat transfer. Internally within the fin, the wave increases turbulent air and has the best non-clogging properties.