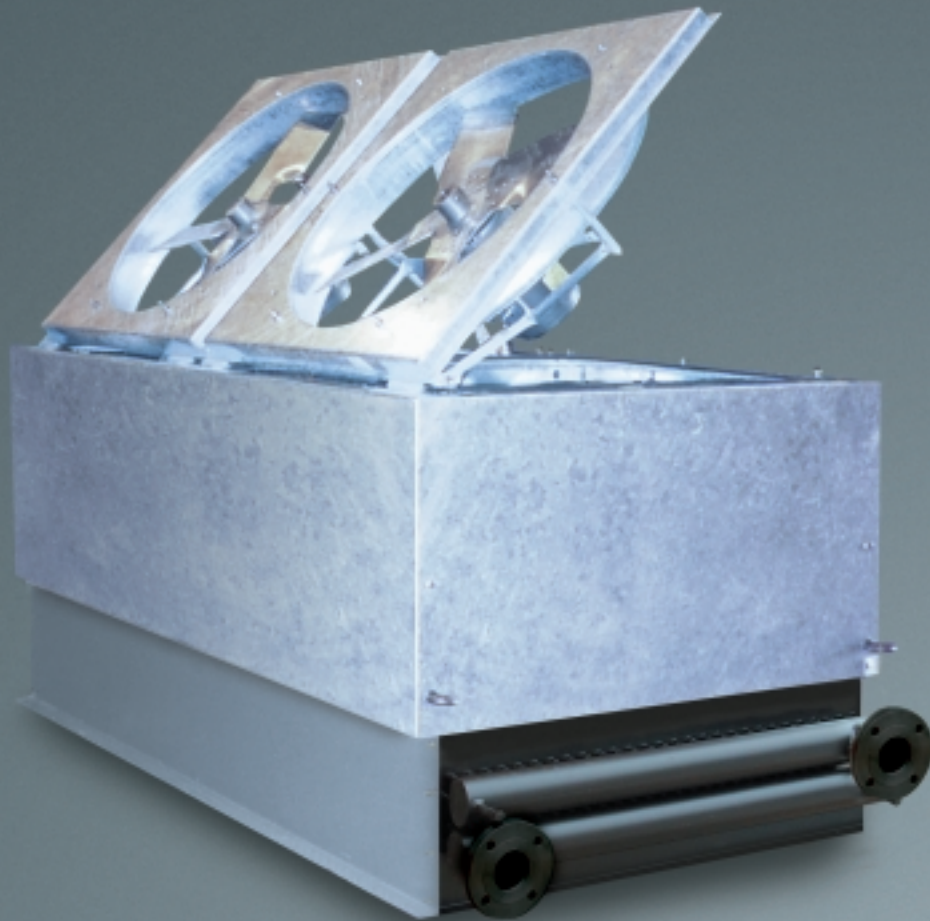


AEROFIN



Transformer Oil Coolers & Coils



**forced oil
forced air**

Transformer Oil Coolers & Coils

Since 1923 Aerofin has manufactured heat exchanger coils and related equipment for electric utilities and many other applications. Aerofin maintains a certificate of Authorization for U-stamping ASME Section VIII, Division 1 pressure vessels, as well as the UM, R, PP, N, and NPT stamps. Our commitment to quality and our many years of experience ensure that our product will meet the most stringent requirements.

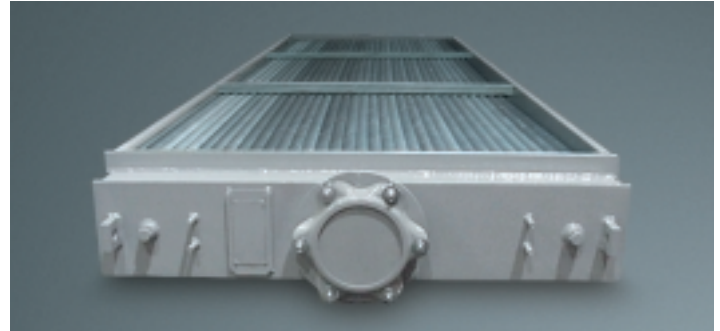
Application

The transformer oil cooler is unique. Fluid thermal properties, coil internal cleanliness, and replacement fit-up to existing structures all require careful consideration.

To ensure accurate thermal performance, Aerofin has performed extensive testing with transformer oil to determine heat transfer coefficients over a broad range of operating conditions. The testing included finned tubes with internal tube inserts (turbulators) and without turbulators. In addition, for applications where low oil velocity is present and turbulators are not acceptable, we have tested laminar flow conditions to assure the most accurate performance possible.

Coil internal cleanliness is required for maximum coil performance and for protection of other system components from possible damage. Aerofin coils are designed to provide trouble free performance and are carefully manufactured to minimize the presence of foreign matter within the coil. Each coil is inspected for internal cleanliness prior to shipment.

Cooler or coil replacement requires precise fit-up from connection to connection to minimize down time. Aerofin custom fits its designs using a variety of spiral fin tube or plate fin bundles. This flexibility in heat transfer surface allows us to increase finned surface within the available space and to achieve proper fit up.



Product

Once dimensions and performance requirements are established, Aerofin provides submittal drawings detailing construction, materials, and applicable tests and procedures.

Typically, cooler housings are steel with direct drive fans either fixed or hinge mounted for access. Coils are usually constructed with heavy gage steel housings, copper tubes, copper tin coated fins or aluminum fins, and welded box headers. Fins are available over a thickness range from .010 to .020. Tube to header joints are roller expanded. Coil circuiting is usually one pass with bottom cooler inlet and top outlet, often with coupling connections. Multi pass serpentine circuits are available to increase oil velocity and overall performance.

Cooler and coil casings may be hot dip galvanized or sand blasted and painted to meet specific customer requirements.

Service

Aerofin welcomes the opportunity to prepare a proposal for your transformer oil cooler requirements. Our engineers are always willing to assist customers in preparing specifications to meet the particular requirements for their application. Allow Aerofin to put our experience and our commitment to quality to work for you.



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