

Conversion Kit Thermosiphon Cooling for Atmosphere Fans (“Turbos”) in SAFED Plants

From central water cooling to a decentralized, self-sufficient thermosiphon cooling



REBUILDING AND MODERNIZATION
Process reliability + energy efficiency

WATER COOLING AT A FURNACE CAN BE PROBLEMATIC

So far, centralized water cooling has been used to cool atmosphere fans (“Turbos”) in plants. However, this system comes with **disadvantages**:

- **The cooling performance** requires functioning pumps and is thus **dependent** on the state of the **pump** and the **line voltage** (power outage).
- With time, **calcifications** lead to clogged lines and, later, to a **cooling malfunction**.

In either case, a downtime of the cooling performance leads to considerable damage of the atmosphere fans (“Turbos”) and thus to malfunctions in the production process.

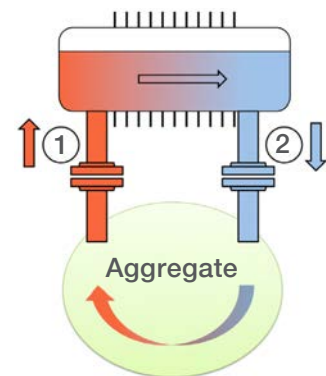
- **Water as a cooling medium** is a **safety risk** for heat treatment plants and should be avoided, especially combined with oil and salt baths

THE AICHELIN SOLUTION: A PLUG AND PLAY SYSTEM WITH HIGH RELIABILITY

The central cooling system is replaced by a completely **self-sufficient cooling system**, namely the **proven thermosiphon cooling**. It works with a gravity principle which uses **heat transfer oil** as a cooling medium. To reach the required cooling performance, AICHELIN has designed an intermediate flange which enables a simple connection of the atmosphere fans (“Turbos”) with the proven thermosiphon cooling.

The higher level of standardization allows for this conversion to be implemented in different T series, and very quickly and easily too, at a low cost. The downtime is minimal and has almost no impact on your production.

This conversion is **ideal for combining with a maintenance!**



YOUR ADVANTAGES

- Predictable regarding time and cost
- One-stop service
- Fair pricing and simple processing, as is standard for us
- AICHELIN quality parts
- Combined with an AICHELIN annual maintenance, your plant will continue to operate reliably
- The thermosiphon cooling is virtually maintenance-free
- High operation and process safety
- Modular set-up for different furnace types
- Well approved AICHELIN product

YOUR RELIABLE PARTNER

- Ultimate flexibility while considering customer requests (date, scope & extras)
- Play it safe, with a market leader in heat treatment
- Reliable components supplier
- High competence regarding plant modernizations
- Perfect integration into your heat treatment plant by the original manufacturer