

Closed Circuit Cooler

NEW STANDARDS ENHANCE EFFICIENCY



DESIGN & FUNCTION

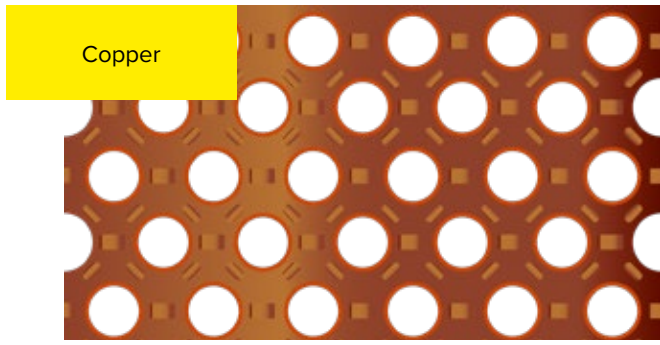
Closed circuit coolers are designed according to customers' requirements and assure exact compliance with their performance specifications. Our compact fin tube systems enhance heat exchange and allow low material usage without performance loss. Our many official approvals and certifications allow us to design and manufacture closed circuit coolers for many and various applications.

Our standard range of closed circuit cooler models is designed to satisfy the conditions presented by our customers involving thermal and mechanical-engineering requirements. This standard line includes a great number and variety of material combinations for tubes, fins, tube sheets, headers, and the like: e.g., copper, CuNi10, CuNi30, various stainless-steel types, as well as titanium. For requirements not covered by our extensive standard portfolio, we develop customized solutions - including highly effective systems for applications under extreme operational conditions.

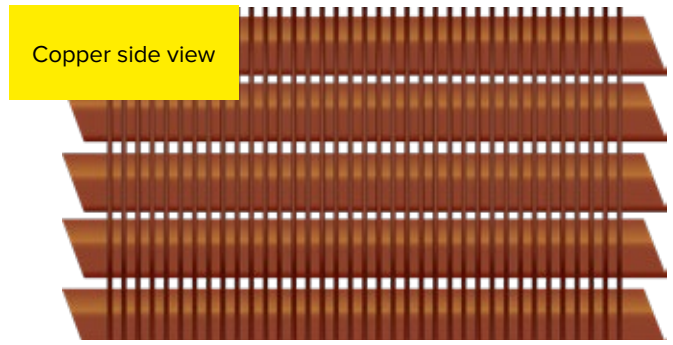
ADVANTAGES

- ▶ **COMPACT FIN-TUBE SYSTEMS WITH ENHANCED HEAT TRANSFER**
- ▶ **DIFFERENT MATERIALS AND SURFACE PROTECTION OPTIONS FOR GAS SIDE COOLING**
- ▶ **CUSTOMIZED SOLUTIONS**
- ▶ **HIGH RELIABILITY AND PERFORMANCE DENSITY**
- ▶ **DOUBLE TUBE SAFETY DESIGN OPTIONAL**
- ▶ **MAINTENANCE FRIENDLY**

COMPACT FIN-TUBE SYSTEM



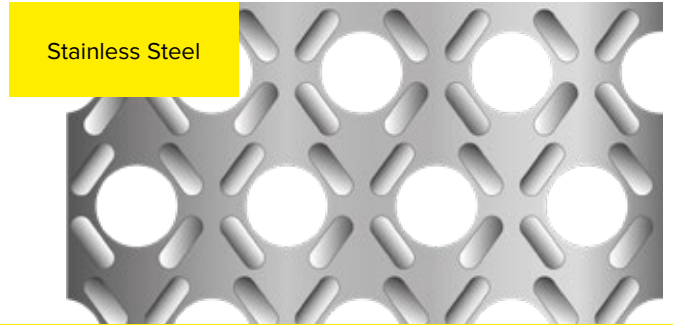
Copper



Copper side view



Stainless Steel



Stainless Steel

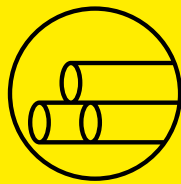
Each Compact Fin-Tube System has an individual fin design according to the application requirements they are mainly used for. The fin designs are developed with CFD and verified in a wind tunnel.

Compact Fin-Tube System				
Type	Tube OD	Tube Wall	Tube Pitch	Fin Pitch
S119-32	12 mm	0.6 mm	32 mm	1.2 - 3.0 mm
S141-34	14 mm	0.7 mm	34 mm	1.4 - 3.0 mm
S201-34	20 mm	1.0 mm	34 mm	1.4 - 3.8 mm
S201-50	20 mm	0.8/1.0 mm	50 mm	1.6 - 3.0 mm

MATERIAL OPTIONS

TUBES

- ▶ Cu
- ▶ CuNi10
- ▶ CuNi30
- ▶ Brass
- ▶ Stainless Steel
- ▶ Titanium
- ▶ Duplex



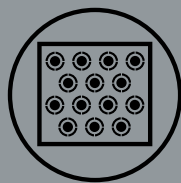
HEADER

- ▶ Carbon Steel + Rilsan Coating
- ▶ Stainless Steel
- ▶ CuNi10
- ▶ CuNi30
- ▶ Titanium



FINS

- ▶ Cu
- ▶ Al
- ▶ Cu tinned
- ▶ Stainless Steel
- ▶ Al-Epoxy
- ▶ Blygold Coating®



TUBE SHEETS

- ▶ CuNi10
- ▶ CuNi30
- ▶ CuZn38SnAl
- ▶ Carbon Steel
- ▶ Stainless Steel
- ▶ Titanium

