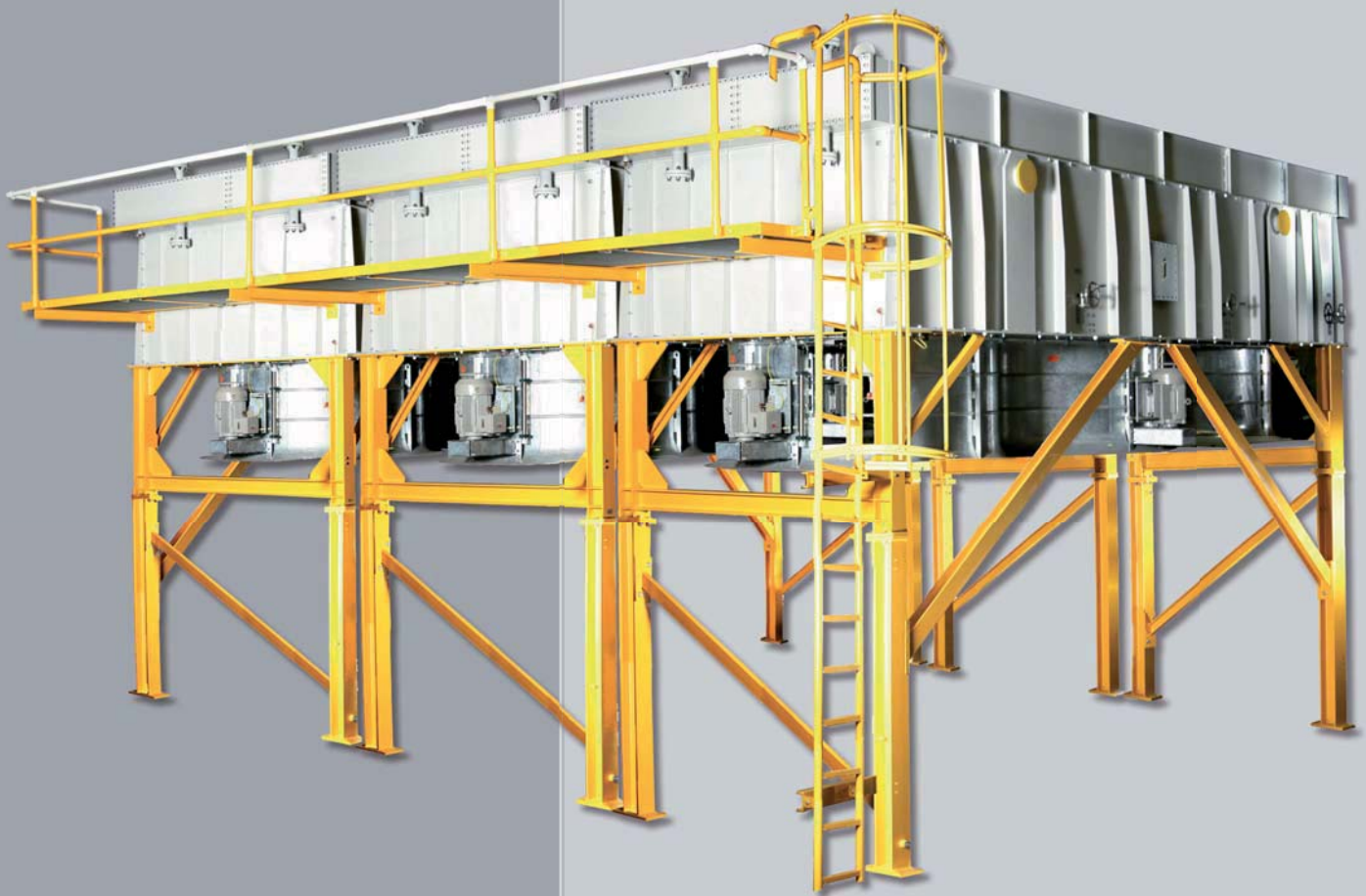


# TUBETECH<sup>®</sup> GmbH

*Air-cooled heat exchangers*

*Made in Germany*



[www.tubetech.de](http://www.tubetech.de)



TUBETECH GmbH is a medium-size company based in Plauen/Vogtland.

We offer high quality manufacturing of air-cooled heat exchangers “Made in Germany” including required national and international approvals and certificates.

TUBETECH GmbH is a 100 % subsidiary of OELTECHNIK mbH founded in 2001. The company currently employs around 85 workers.

The Plauen production site is equipped with modern machines. The shop area under the roof is 25.000 m<sup>2</sup>, allowing the production of heat exchangers and finned tubes in a high efficient way also for large contracts.

Our product range includes:

- Air-cooled heat exchangers – ACHE (e.g. gas coolers, product coolers and condensers, special applications)
- Air-cooled condensers – ACC
- Air preheater (LuVos)
- Replacement bundles for: air-cooled heat exchangers, compressor gas inter- and aftercoolers, generator coolers
- Finned tubes

TUBETECH products are custom designed fulfilling all customer requirements. Units up to 40 t in weight, 4 m wide and 20 m long can be manufactured.

## *Air-cooled heat exchangers*

- Rectangular heat exchanger bundles equipped with finned tubes or bare tubes
- All common fluids and gases can be handled on the medium side (tube side)
- Steam or product condensers
- Tube-side materials: carbon steel (also H<sub>2</sub>S service), stainless steel, duplex, titanium, other special materials on request
- Fin materials: aluminium, copper, galvanized carbon steel

### **CERTIFICATIONS:**

- Quality management system, ISO 9001:2000
- Approved manufacturer in accordance with:
  - Pressure equipment directive 97/23/EU, AD 2000 – Data sheet HP 0
  - ASME Code sect. VIII Div. 1 – U-Stamp holder
- DIN EN ISO 3834-2 Quality requirements for welding technology
- Manufacturing qualification for welding of steel constructions in accordance with DIN 18800-7:2002-09, Class C.

Through the parent company OELTECHNIK mbH, TUBETECH has access to additional certifications, such as China Manufacturer Licence, Korean Certificate, WHG, DNV Class I and II, Lloyds Register Rules - Marine class 1, National Board of Boiler and Pressure Vessel Inspectors.

# Calculation

TUBETECH GmbH has comprehensive „Know-How“ in the field of air-cooled heat exchangers and combines engineering and manufacturing under one roof in Plauen / Germany.

- Quotations are prepared by experienced engineers
- Our quotation includes:
  1. Thermal design according State-of-the-Art, using HTRI software and in-house developed software, specially adapted to the product
  2. Fan design and calculation of noise emissions
  3. Technical descriptions with clearly arranged data sheets and principle dimension sketches



**TUBETECH offers customized solutions for all kinds of air-cooled heat exchangers – starting with engineering and manufacturing up to assembly and commissioning.**

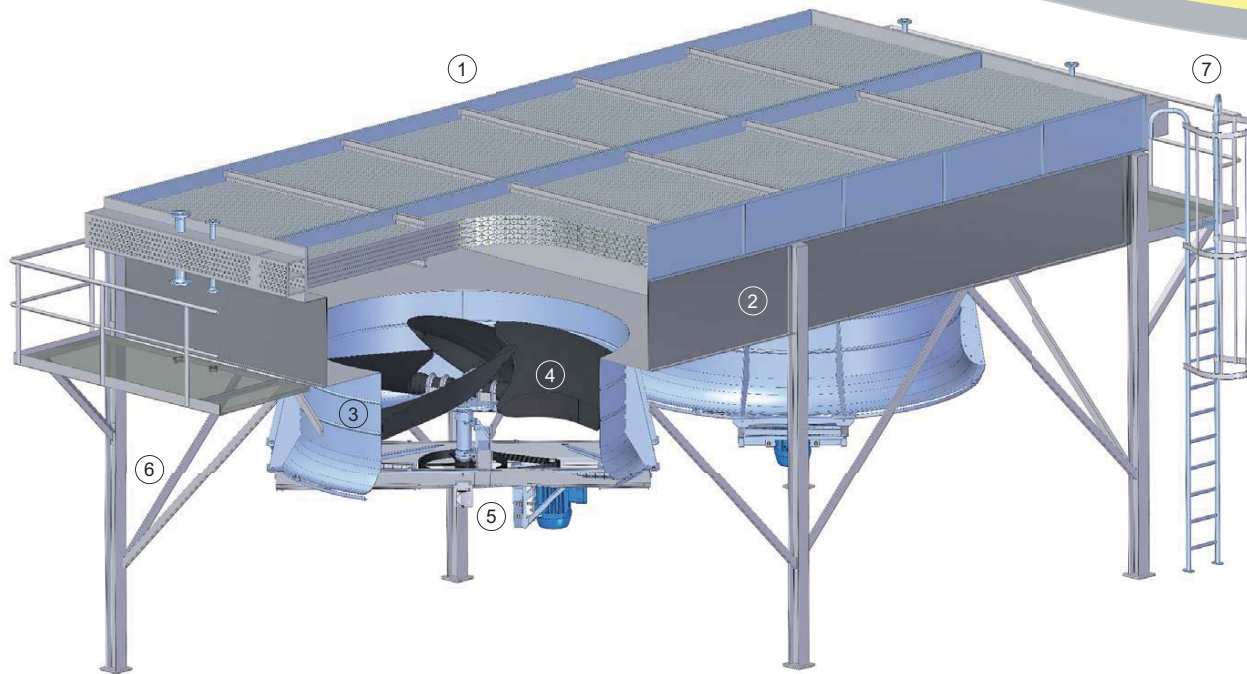
## Scope of Delivery

Design, engineering and manufacturing of air-cooled heat exchangers including

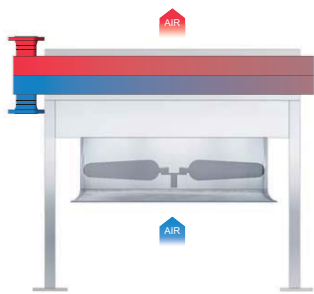
- Strength calculation of pressure parts in accordance with AD-2000, ASME VIII, EN 13445, others on request
- Static calculation
- Fan ring and motor supporting bridge optionally with:
  - Direct drive
  - V-belt drive or
  - Gearbox / geared motor
- Steel structure (e.g. plenum, supporting structure, walkways)
- Special applications:
  - „Very Low Noise Design“
  - „Low Temperature Design“ (e.g. recirculation-type acc. API661)
- Accessories as required: e.g. louvers, vibration switches, frequency converters, others on request

**TUBETECH GmbH stands for customer satisfaction due to a consistently high quality of our products at a competitive price combined with short delivery time and high flexibility „Made in Germany“.**

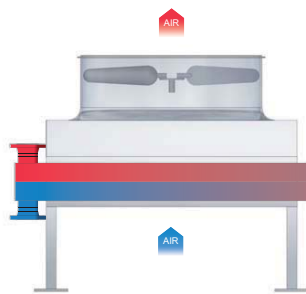




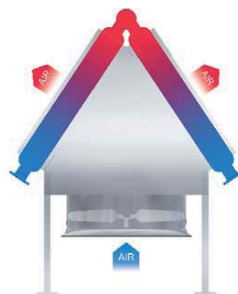
- ① Heat exchanger bundle
- ② Plenum
- ③ Fan ring
- ④ Fan blade
- ⑤ Supporting structure for V-belt drive and motor
- ⑥ Steel construction
- ⑦ Walkway and ladder



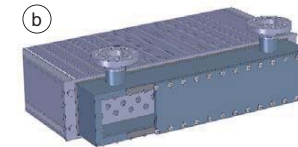
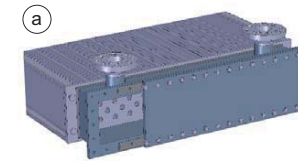
Forced draft installation



Induced draft installation



Roof-type installation (forced)



**REMOVABLE COVER-PLATE HEADER**

This header design, with a flanged cover plate, meets API 661 „removable cover-plate header“.  
Application: Highly soiled fluids with frequent tube cleaning intervals on the inside of the tubes

Applicable range: up to 40 bar,  
> 40 bar special designs possible

- a) with through bolts (figure a)
- b) with stud bolts (figure b)



**PLUG HEADER**

This header design, with a plug opposite each tube end, meets requirements for API 661.  
Application: Fluids under high pressure on the tube side (e.g. gases). If the plug has been removed, the tubes behind it can be cleaned, re-rolled or closed.

Applicable range: up to 250 bar,  
special designs possible

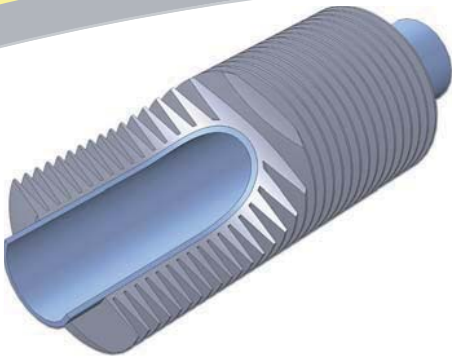


**BONNET HEADER, WELDED-ON (D Type)**

The bonnet header with a half pipe end construction.  
Application: With clean products on the inside of the tube and/or with a low leakage requirement.

Applicable range: up to 25 bar, even at higher temperatures (around 250 °C), special designs of up to 100 bar possible

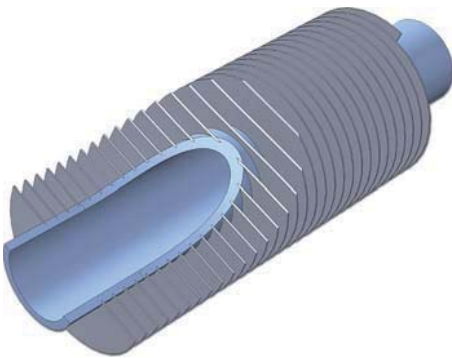
# Finned tube systems



## BI-METALLIC (E-FIN / extruded)

The fins are formed by extrusion from an aluminium outer tube onto the host tube. This results in a very good contact between the host tube and the fin and an efficient corrosion protection.

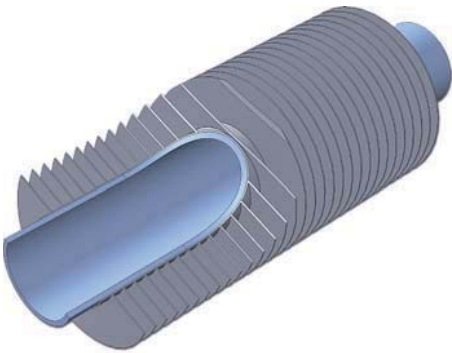
Application temperature: max. 300 °C  
Material combinations: Core tube: all metals  
Fin: Aluminium



## G-FIN

The fin is wrapped under tension and mechanically embedded in a groove, which was spirally cut into the outside surface of the tube. This results in a good, permanent bond between the fin and the tube.

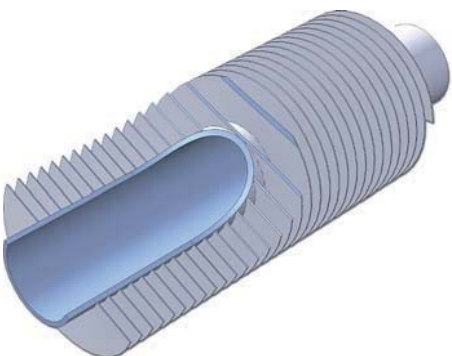
Application temperature: max. 400 °C  
Material combinations: Core tube: Carbon steel, stainless steel  
Fin: Carbon steel, aluminium



## L-FIN / KL-FIN

An L-shaped band is spirally wrapped under tension over the outside surface of a tube. This results in a large contact area between the fin and the tube.

Application temperature: max. 130 °C / max. 250 °C  
Material combinations: Core tube: Carbon steel, stainless steel, duplex  
Fin: Aluminium



## I-FIN (galvanised)

A band is spirally wrapped under tension over the outside surface of a tube. The special thing here is the corrugated fin foot, which enlarges the contact area between the fin and the tube. In addition, the fin is galvanized onto the tube for efficient heat transfer and excellent corrosion protection.

Application temperature: max. 380 °C  
Material combinations: Core tube: Carbon steel, stainless steel  
Fin: Carbon steel

# Service

TUBETECH GmbH Plauen offers the following services for the air-cooled heat exchangers supplied:

- Assembly / assembly supervision
- Cold start-up (e.g. functional test of louvers)
- Preventive maintenance work e.g. including drive inspection
- Cleaning of the external heat exchanger surfaces (finned tubes)
- Cleaning of tubeside (header and tubes)
- Repairing



# Market

Our customers are international companies in the:

- Chemical and petrochemical industry
- Gas industry
- Energy & power plant technology
- Environmental & recycling technology





# Contact & access

## Contact:

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## Access:

