



**air cooled systems  
and air heaters**

**ALZ GmbH**

**Quality and Competence**





well as the fabrication progress is transparent at all times.

Our goal to always deliver the best possible quality is documented and assured through our own quality management system which is certified since 1994 according DIN EN ISO 9001.

We would be glad to be at your service.  
Please contact us.



We would like to introduce ourselves as your competent partners in heat transfer.

Since 1990 the ALZ GmbH designs and manufactures heat exchangers with bare and finned tubes as well as whole air cooled heat exchanger units.

As a modern, medium sized company we do not only have the required know how but are also very flexible in handling our projects.

With our experience and the application of the best available technology we became one of the leading suppliers in Germany.

It is always our primary goal to meet the requirements of our customers. Therefore we concentrate all working steps from engineering to the fabrication of our heat exchangers at a single location. Our office and workshop are located in Dorsten, Germany.

Our engineering services range from the thermodynamic design to the preparation of all required calculation-, construction- and manufacturing-documents.

With our inhouse fabrication we have a high flexibility and the best possible means to secure delivery dates. For our customers the quality of our work as







## Air cooled heat exchangers

Process cooling with air as cooling medium is used successfully in many industry branches and becomes more important with steadily increasing costs for cooling water. At locations where cooling water is not available it is often the only possibility for the cooling of process streams. Our engineering departments place their know how

for the thermodynamic and mechanical design of complete air cooled heat exchanger units at your disposal. Design and construction are carried out according national and international standards as well as customer specifications. Through all stages of engineering we are using professional software applications.



### Following our customers demands our scope of supply of air cooled heat exchangers comprises

- ▶ heat-exchanger bundles with welded bonnet headers, removable cover plate- or plug-headers
- ▶ horizontal, vertical, A-frame or V-frame arrangement
- ▶ axial fans in forced or induced draught installation
- ▶ complete steel construction with ladders and walkways
- ▶ auxiliary equipment such as frequency converters and control cabinets
- ▶ erection on site and commissioning support







## ALZ-heat-exchangers as plant components

ALZ-heat-exchangers can be used as plant components in a versatile way. They can be found in many industry branches. Among them are the power industry, the chemical industry and various other industry branches with process plants. As heat transfer medium

usually steam, thermal oil or water are used. Heating and cooling of gas streams is an important process step in many plants. As airheaters ALZ-heat-exchangers are often utilized in power plants. They heat up the air that is used in the combustion

process. The same applies to drying plants where the air that is needed for the drying of the different goods has to be heated up.

The cooling of gas streams often serves process steps where heat is recovered. A common application are economisers in power plants. In certain applications humid gas streams are cooled below the dewpoint which means that the gas is dehumidified.

The used materials can be carbon steel, various types of stainless steel and duplex materials. ALZ-heat-exchangers are customized according to the

individual requirements of our customers. A variety of tube types (finned and bare tubes) are available.

For smooth integration into the plants the heat exchangers can be built with different casing options. Among them are airtight casings with flanged connections to air ducts and types with enlarged tube sheets for installation into existing casings.

Transition pieces for the intersection from the heat exchanger face area to existing air ducts can also be included in our scope of supply.







## Engineering and fabrication

Our engineering services always comply with the requirements of our customers.

They range from the thermodynamic and mechanical design to the complete calculation-, construction- and manufacturing-documents. Also included are all clarifications with the appointed notified body.

We specially focus on consulting services regarding thermodynamic and design engineering. Professional and well-trying software is used from start to finish. Thermal design is carried out with software from in-house development as well as proprietary software such as the renowned "HTRI Xchanger Suite". Mechanical design and construction are carried out with AUTOCAD Inventor.

The code base for our work is formed by national and international standards. Additionally many of our customers have their own specific standards which of course can be used as well.

The effective organization of our engineering departments with short response times and a close co-operation with our customers ensure the highest possible efficiency from the start.

The satisfaction of our customers is always a priority to us. To ensure the quality of our products the fabrication of our heat exchanger bundles is carried out completely in our workshop in Dorsten, Germany. The machines and equipment for tube finning are inhouse developments.

The focus of our fabrication lies on an optimized execution of the welding procedures on the pressure bearing parts. Separated processing of different materials such as carbon steel, various stainless steels and duplex materials is mandatory for us.

By using state-of-the-art welding procedures and equipment we ensure a constantly high fabrication-quality. All our welders are certified according the applicable regulations. In addition to that qualifica-

tion many of our personnel have a vast amount of experience in their field.

The applied welding procedures include GTAW-, GMAW-, SAW- and SMAW-welding.

All procedures are certified according the applicable standards. Comprehensive non-destructive testing supplements our quality standards.







## Erection on site

To complete our services we can offer you the erection of our products at the designated site. If required we also can assist you during plant commissioning.

Erection on site is carried out by experienced personnel. Even under demanding circumstances such as erection in great height or with limited accessibility we provide our services effectively and reliably. To work safely and environmental friendly is of great

importance for us. Therefore it is needless to say that all work is carried out according to the applicable health, safety and environmental regulations.

Altogether we can provide you with complete erection services that will fully satisfy your needs.



## Quality and competence

Considerable experience built over decades and comprehensive qualifications are the foundation that enables us to manufacture products with the desired high quality. ALZ GmbH is qualified according the following standards:

- ▶ DIN EN ISO 3834-2
- ▶ European Pressure Equipment Directive
- ▶ AD-2000 Merkblätter (HP0)
- ▶ ASME U-stamp
- ▶ EN 13445

A number of pressure vessel codes such as AD-2000 Merkblätter, ASME-code or EN 13445 are well known standards for us. Additional design codes and qualifications, as well as customer specifications can be considered on a case to case basis.

Apart from the mentioned qualifications which are monitored by external organizations as the TÜV it is also very important to internally monitor our quality. To ensure meeting the expectations of our customers and ourselves when it comes to quality we are working according a comprehensive quality management system. It comprises all activities in our company from administration and engineering to production and documentation. The quality management system is subject to periodic review and certified according DIN EN ISO 9001.



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