

Wieland GEWA-safe Tubes

For absolutely reliable media separation
with best thermal contact

Safety tubes are used for economical and safe heat transfer. The double wall tubes feature defined leakage paths for the absolutely reliable separation of fluids. For your individual

requirements concerning fluid dynamics, we decide on the most suitable surface structure. Our GEWA-safe tubes are a reliable and safe choice for applications such as

the direct heating of drinking water using critical fluids as in heating technology or for controlling the temperature of sensitive chemical processes.

No tolerance for cross-contamination

Whether production processes with highly reactive media, the heating or cooling of food, nutrition or tap water – there are applications where there is no tolerance concerning contamination.

Absolutely reliable separation of fluids

GEWA-safe tubes are a tube-in-tube solution featuring defined leakage paths in the tube wall.

Compact design

GEWA-safe tubes enable a very compact design of safety heat exchangers, reducing material and labour costs as well as heat exchanger footprint.

Highest system availability, efficiency and safety

Leakages of inner or outer tube are immediately recognizable and can be fixed as part of scheduled maintenance schemes. The excellent thermal conductivity is a result of the metallic contact between the two tubes and provides superior heat transfer as compared to solutions using heat transfer fluid.

Different types

Depending on the application, the tubes are available

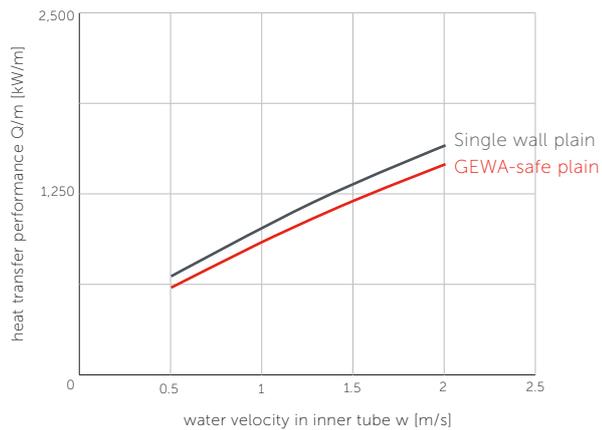
- with either plain or enhanced outside surfaces,
- in copper, copper-nickel as well as in material combinations,
- in either loose or already bonded version

Application examples

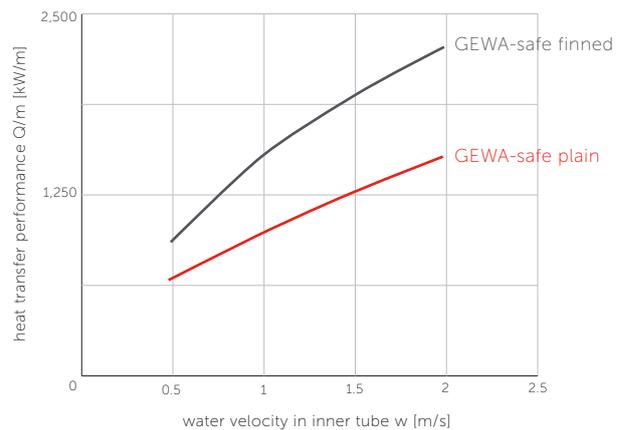
- pre-heating of fuel gas for gas turbines
- protection against environmentally harmful substances
- transformer oil water cooler
- drinking water protection according to EN 1717 in heat-pump systems
- heat recovery systems

Comparison of heat transfer performance

GEWA-safe plain vs. single wall tube



GEWA-safe plain compared to GEWA-safe finned



Test conditions:

tube-in-tube measurement, media: annulus space water @ $w=1$ m/s,
inside tube water, $dT=10$ K, outside diameter=19.05 mm,
tube length=1 m

Our services

- **Engineered quality** | Fine adjusted material and mechanical conditions result in an ideal heat transfer.
- **Material range** | Copper, copper-nickel and material combinations, optimized for your application with ideal bonding.

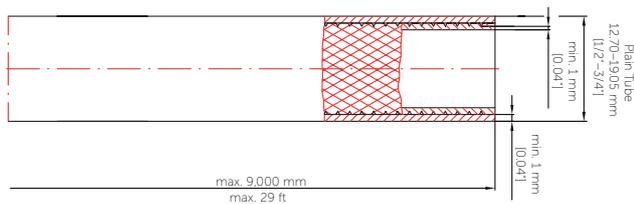


Your benefits at a glance

- **Reliable and safe** | Fluid separation due to double wall design with leak detection.
- **Efficient** | Excellent heat transfer due to metallic contact without heat transfer fluid.
- **Highest system availability** | Early leakage detection facilitates scheduled maintenance.
- **Compact and economical** | More compact heat exchanger design, less footprint.

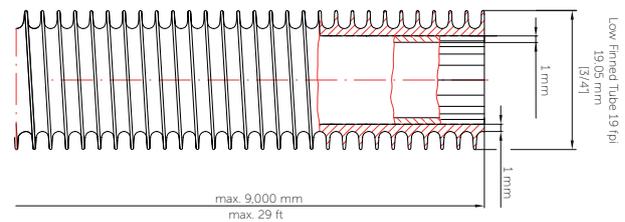
Examples of tube configurations

GEWA-safe plain



dimensions on request

GEWA-safe finned



Tube configuration

- Outside: plain or enhanced
- Inside: plain or with grooves for improved heat transfer
- Leakage paths: longitudinal grooves or pyramid structure

Materials

- Copper
- Copper-nickel

Temper

- As drawn/as finned
- Annealed

Versions

- Loose
- Bonded

Quality Assurance

To ensure consistent product quality, Wieland-Werke AG has a sophisticated quality control system according to DIN EN ISO 9001:2015 which has been verified and certified by an independent certification company.

Technical Service

Wieland Thermal Solutions supports from the very early product planning stages in order to obtain optimum results for the manufacturing stage and for your application. The only way to find the best, most cost-effective solution is by means of comprehensive technical consultation based on computer-aided thermal engineering rating.



Contact us

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