

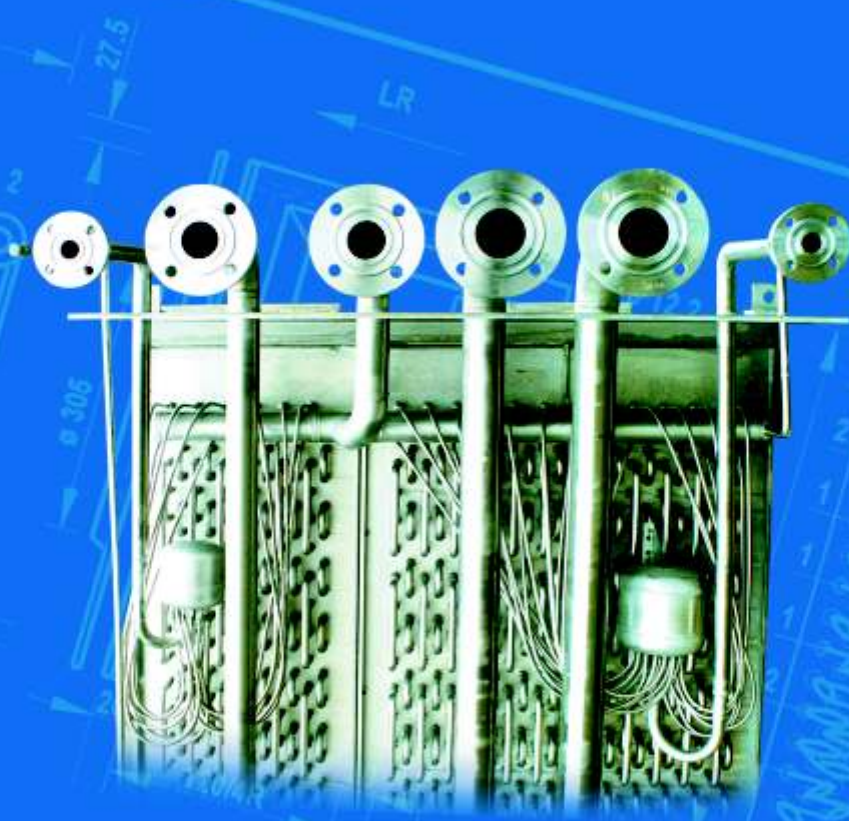
**KHS**

Thermotechnical equipment

Karl Hermann Schadek

Keep your equipment cool,  
even when things get hot:

**Special heat  
exchangers for  
refrigeration and  
air conditioning  
industry**



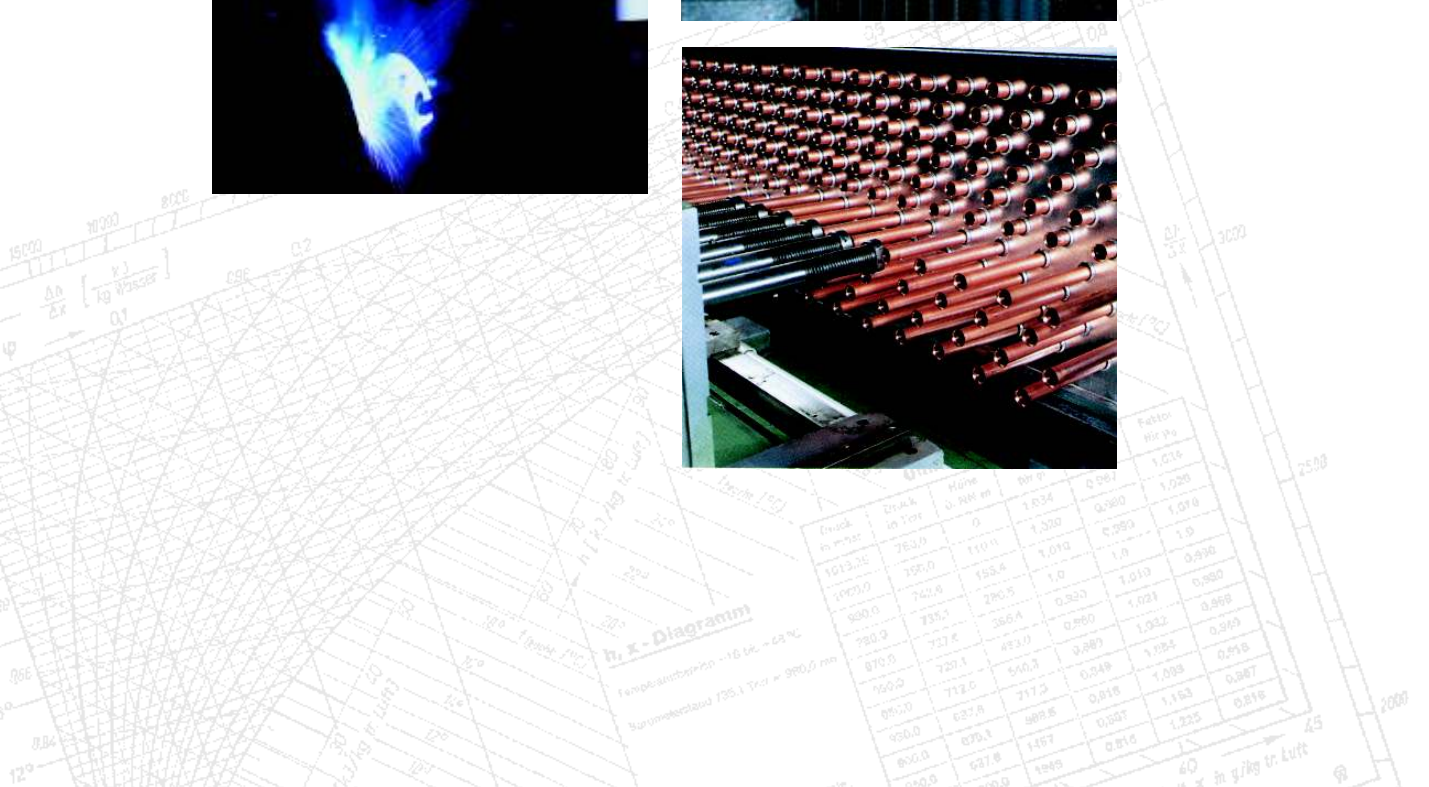
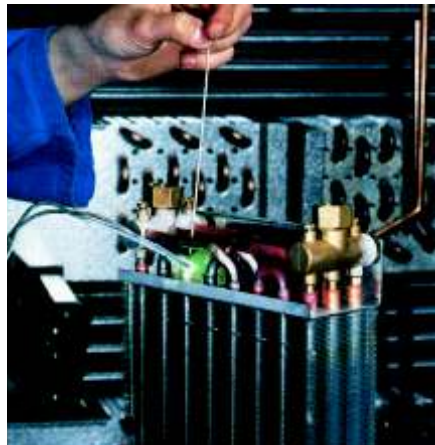
# Schadek quality management:

## Uncompromising production quality and demanding manufacturing standards.

Only a constant commitment to the highest quality ensures ever enhanced services and products. All Schadek partners benefit from constantly high standards, precise compliance with their specifications and the possibility of using all the products anywhere in the world, even under the harshest conditions.

Demanding technology, perfect ergonomics and effective operation as well as the ability to produce solutions to match our customers' demands – these are the well-known strengths of Schadek.

Always one step ahead with the strength to innovate!





# Materials and dimensions.

## Dimensions:

Overall length - max. 8600 mm;  
overall height - max. 2400 mm; fins:  
2.0 – 12.0 mm;  
unit weight: max. 8,000 kg  
Schadek concentrate on tailored  
concepts.  
Designs with or without fans are  
manufactured either as single units  
or in series from 100 to 500 units.

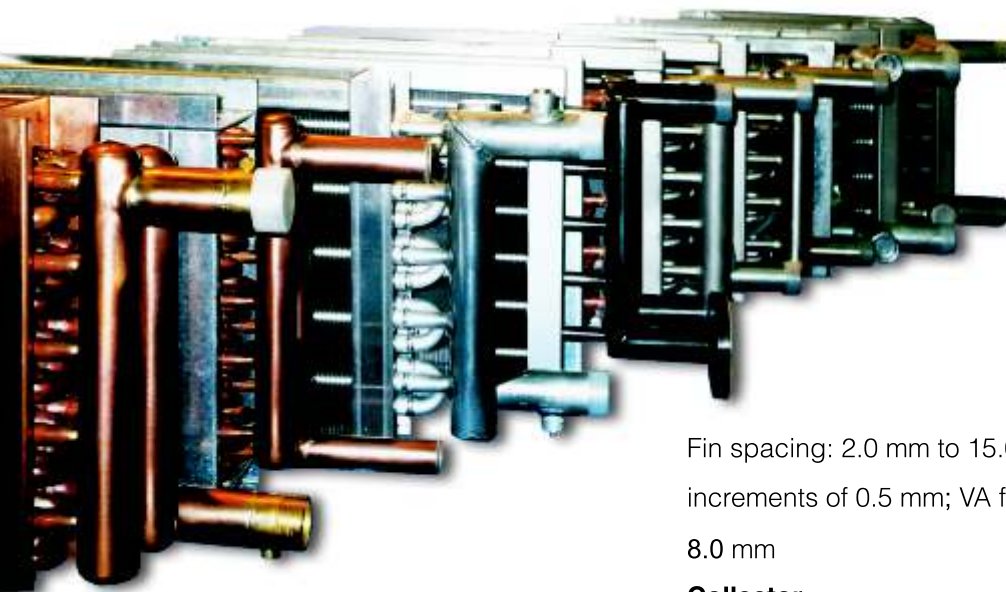
## Tube pitch:

40/35/16,5; 60/30/16,5; 30/30/16,5;  
30/30/12; 35/35/12; 35/35/10;  
25/25/10; 25/22/10; 50/50/15;  
60/52/21;

## Materialien:

Tubes - Cu / CuNi / CuSn / AL / V<sup>2</sup>A /  
V<sup>4</sup>A / Fe / FeZn / 254 SMO / Titan

Thickness 0.4; 0.5; 0.7; 1.0; 1.25;  
1.5 (in mm)



Fin spacing: 2.0 mm to 15.0 mm in  
increments of 0.5 mm; VA fins up to  
8.0 mm

## Collector:

Cu / Fe / VA / FeZn Ø ½"- 5"

## Frame:

AL / FeZn / V<sup>2</sup>A / V<sup>4</sup>A / Cu Sn / EPOX  
- bath hot dip galvanised

## Gas-tight enclosures:

e.g., for biogas condensation,  
dichlorotoluene condensation

## Acceptance criteria:

Schadek finned heat exchangers  
comply with the Pressurised  
Equipment Directive, Machinery  
Directive, TUEV provisions, AD 2000  
– 3.1 B / A, BW Abnahme,  
Germanischer Lloyd (Lloyd's  
Register), ASTM E

... and the requirements become ever more complex.



Heat recovery for interlinked high-capacity closed circuit systems. Conventional design, cross counter flow operation for maximum effectiveness. Multiple cross counterflow by K H S n-multiple control. Available in any combination of materials.



Heat exchangers for air/steam condensation, for aggressive media designed as direct evaporators, made from V<sup>4</sup>A steel, with several cooling circuits for R 23 / R404A cascades and an integral water glycol circuit for de-icing the heat exchanger. Suitable for petrol vapour recovery, dichlorotoluene condensation etc.



Special heat exchangers



Heat exchangers for special process cooling, e.g. in the wood industry and power plant engineering, with hinged collector chambers for convenient cleaning of internal pipework.



Special heat exchangers for high temperatures, made from high-temperature steels.



Special heat exchangers for integration into items of special equipment.

# The range of applications of innovative Schadek products becomes wider every year...



Air coolers as direct evaporators made from V2A and V4A steel for fitting into ducts, or between ducts and items of equipment, including a condensate collector. On request fitted with droplet eliminator to cool aggressive atmospheres.



Evaporator plates suitable for ice storage systems and for process cooling. Plates designed for direct evaporation, refrigerant liquefaction with water flow through the plates. Available in titanium, stainless steel and mild steel. All plates are produced using advanced laser equipment. Plate systems for use as tubular emulsion coolers in a round jacket to meet customers' requirements are available.



Enclosed air coolers, tailored to meet your particular specification. The standard version is made from CU-AL. On request they may be made completely from V2A / V4A steel with a hinged condensate collector as well as pivoting covers to enable the block of fins to be cleaned.



Tube bundle heat exchangers made from a series of U-tubes or expanded tubes, with or without knobs, with or without a jacket. Available in titanium, Hastelloy, Incoloy, stainless steel and mild steel.



Air cooled coolant liquefier and dry cooler



Special heat exchangers for use as air coolers or air heaters. Gas-tight, fully welded design. Available in titanium, Hastelloy or stainless steel. For sludge drying and biogas condensation.



A swift response and access to a well stocked raw material warehouse as well as a range of complete systems and spares ensure short lead times and dependable handling of your orders. A highly professional service together with excellent value for money and individually designed, economical concepts that match your requirements precisely, result in the proverbial Schadek quality standard.

Schadek heat exchangers rapidly pay for themselves. If needed, existing systems may be flexibly extended.

Enhance your competitive edge. Take advantage of fifty years of engineering and the experience gained from co-operation with more than 1,500 users worldwide.



# You won't win tomorrow's markets with yesterday's technology.

## Set out to successfully co-operate with a high performance partner.

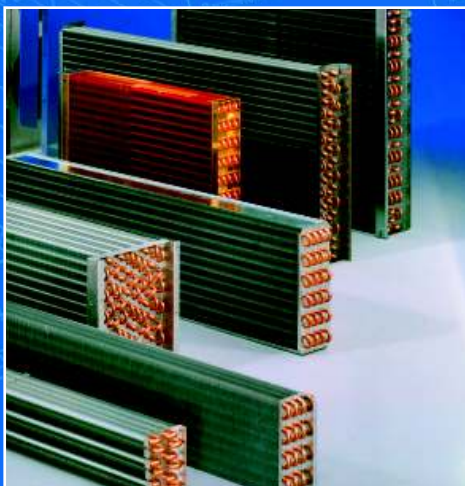
Since its foundation in 1954, Schadek has become established as an internationally renowned company for the development and production of special heat exchangers. As a partner to industry, research institutions and the armed forces, we focus on the tailored development of single units and complete systems.

The depth of our know-how and a feeling for new application opportunities in refrigeration engineering and air conditioning as well as unique activity in the field of technology transfer enable us to set ever new benchmarks that bring innovations to our customers which help them open up new business fields.



We supply to companies from a wide range of industries, e. g. chemical, pharmaceutical, medical technology, automation, power generation, automotive, communication, space technology, as well as military engineering.





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Heideweg 16 fon ++49 (0)2739/35 01  
57234 Wilnsdorf fax ++49 (0)2739/43 68  
Germany

info@khs-schadek.de · www.khs-schadek.de