



JUNIOR

Heatsinks



Pure Precision.

WELCOME

YOUR aluminium
component specialists



CONTENTS

02	Our company	18	Precision
04	Raw materials	20	Flexibility
06	Standard sections	22	Economy
08	Special sections	24	Sustainability
10	Production range	26	References

TRADITION THAT LEADS THE WAY

Precision. Flexibility. Economy. These are the values for which Junior Kühlkörper GmbH has stood for more than 35 years. Today we are one of the leading companies in the manufacture of top quality aluminium precision components and heat sinks. We are specialised in the machining of customised high capacity extruded sections. Our superbly refined technology, fully integrated quality management system and the cumulative technical expertise of our more than 200 experienced staff members ensure that we can meet practically all customer requirements.

HIGH PERFORMANCE AND VERSATILITY

Every year we fabricate up to two million precision components and heat sinks using 100 CNC machining centres. Whether a standard solution or customisation, natural ventilation or forced convection, Junior Kühlkörper supplies ready-to-fit precision components of the very highest quality. You can rely on Junior Kühlkörper's versatility and experience.

But why not see for yourself at
www.heat-sink.eu

*Precision.
Flexibility.
Economy.*

*These are the values for
which Junior Kühlkörper
GmbH has stood for
more than 35 years.*



QUALITY
right from the start



INDEPENDENT AND PRICE-CONSCIOUS

Outstanding thermal conductivity, top strength and minimal weight are the benefits that make aluminium the preferred material for heat sinks. Aluminium has superb machining properties and can be formed into sections of virtually any shape.

As we specialize in extruded sections at Junior Kühlkörper, we work with suppliers and extruding plants that offer the best in technical skills. This gives you two advantages. First, we are independent and so we don't have a problem with exhibility when we're dealing with complex tasks and large quantities. And, secondly, with intelligent purchasing we can achieve price advantages that we can pass on to our customers.

EXTENSIVE RANGE

If you're looking for precision components, it will be difficult to find another supplier that offers as broad a range as Junior Kühlkörper. Weight per meter from 0.1 kg to 75 kg is our daily business. And the dimensional tolerances of our extruded sections comply with industry standards such as EN 12020 and EN 755.

*Punctuality and
delivery reliability
are a matter of
course for us.*



STANDARD SECTIONS of the highest quality



MADE-TO- MEASURE SOLUTIONS

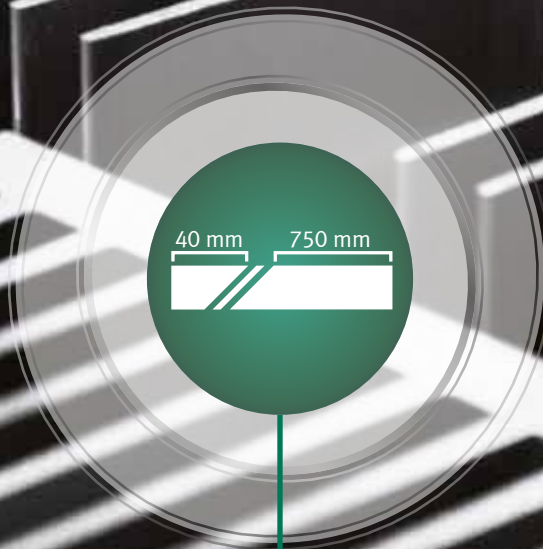
The Junior Kühlkörper standard range comprises 200 extruded sections – and is constantly being extended. The benefits for you are clear: you'll save on unnecessary tool costs and avoid long lead times. We can even provide prompt deliveries if ex-stock goods are not available. Every precision component is supplied ready to fit and we have the optimum solution for a multitude of different requirements. That's what you get from Junior Kühlkörper's standard range.


- Standard heat sinks (40 to 750 mm width)
- Other standard sections



We are able to realize various customer requirements.

Customer service is our strength.



A black and white photograph showing a hand holding a white sheet of material over a metal grating. The grating is made of parallel metal bars. The hand is positioned on the left side of the frame, and the white sheet is being held up, partially covering the grating. The background is dark, and the lighting highlights the texture of the metal and the smooth surface of the white sheet.

We are quite flexible as far as the needs of the customers are concerned.

There is nothing that is impossible for us.





AS DISTINCT
as your requirements



CUSTOMISED SOLUTIONS FOR EVERY NEED

The solar and wind power sector, plant engineering and drive technology suppliers or the IT and electronics industry are some of the sectors we collaborate closely with all our customers to develop tailor-made quality products for a variety of functions. Not only do they remove waste heat from equipment fast and effectively, but they are also used as load-bearing elements in construction while supporting an visual highlight.

In recent years, we have realised more than 1,000 customised special designs for different industries. We'll provide the expertise for your:

- Custom-made sections
- Special solutions (e.g. glued and welded heat sinks)



SPECIAL PROFILES

ADDED SERVICE
brings added value



ALL FROM A SINGLE SOURCE

At Junior Kühlkörper, you'll receive a comprehensive service that covers all aspects of your precision component. From the initial drawing through to delivery of our ready-to-fit components, we'll provide the expertise you need from a partner. You'll have a fully trained member of staff as a contact for all your requirements, so that you can give your full attention to your core business – and get your own products onto the market faster.



- Expert machining of design parts on modern CNC machines
- Expertise in prototype construction
- Professional follow-up: Assembly, gluing, seals foamed into place and surface finishing
- Welding equipment to accommodate extra-wide solutions
- In-house toolmaking workshop for the necessary jigs and fixtures
- 48-hour-deliveries from our high performance logistics centre
- Ample capacity for long-term partnership collaborations

*Good planning is the
foundation of everything.*

*We are always prepared
to help our customer.*

*Short paths,
fast decisions.*



STATE-OF-THE-ART
technology



100 CNC MACHINING CENTRES IN USE

By using state-of-the-art control technology, even complex work-piece shapes can be manufactured with total precision. We use 100 CNC machining centres with longitudinal travel of 300 to 3,000 mm at Junior Kühlkörper.


CNC Machine	Travel X/Y/Z
CHIRON FZ 08W	300 x 250 x 250 mm
CHIRON FZ 08E	450 x 270 x 280 mm
CHIRON FZ 08M	450 x 270 x 310 mm
CHIRON FZ 12	550 x 400 x 425 mm
CHIRON FZ 18W	630 x 400 x 425 mm
Heller MCI 16	630 x 630 x 630 mm
CHIRON FZ 18	2000 x 400 x 425 mm
CHIRON FZ 18L	2600 x 520 x 625 mm
CHIRON MILL 3000	3000 x 685 x 630 mm





We supply finished products and offer individual problem solving.





*We constantly optimize
our machining strategies
and processes.*

*As a result, we improve
our customer's products.*





A WEALTH
of options



WELDING TECHNOLOGY

Junior Kühlkörper uses modern robotic welding systems to join together extra-wide extruded sections. Our expert welding shop has DIN EN 15085-2 certification and is therefore approved to weld railway vehicles and components.

GLUING

When the cooling fins of a heat sink are arranged too densely to allow them to be produced by applying the extrusion process, they are glued onto the base plate manually. Junior Kühlkörper possesses the required stamping technology to produce cooling fins and has longstanding experience with this process. Because of that, we offer you optimal results.

ASSEMBLY

Furthermore, we offer a wide variety of assembly work – for example, pressing in threaded bushes and spacer bolts and assembling active cooling elements. Have a word with us.

PU SEAL

We use state-of-the-art technology to expand a special polyurethane seal directly into the recess of the component. This allows components to be modified as required for their flow properties, reactivity and colour. It also improves protection against moisture, dust and other harmful effects. The seal makes an excellent adhesive bond with the component and demonstrates outstanding long-term behaviour, making it ideal for industrial components in permanent use. The material can be applied in 2 and 3-dimensional form. Heat sinks of all shapes and geometries can be sealed using polyurethane foam.

OPTIMISED surface finishes



A WEALTH OF SURFACE FINISHES


Depending on your requirements, your precision component or heat sink can be supplied with a special surface finish to optimise conductivity and protect against corrosion.

- Anodising
- Chromate conversion coating
- Powder coating
- Nickel-plating
- Tin-plating
- Gold-plating
- Silver-plating
- Shot peening
- Other types of finish are available on request



*We treat every task
with the same
quality standards,
no matter how big
the company is.*





*We check the assembly
and monitor the quality
right down to the
smallest detail.*

PRECISION
is our philosophy



READY-TO-FIT QUALITY

Quality makes all the difference. That's why every component and every heat sink is carefully deburred after machining, thoroughly cleaned in our wash line and packaged at our logistics centre. Our careful treatment means that Junior Kühlkörper can assure you of smooth subsequent processing and optimum functionality.

BEST STANDARD GUARANTEED

In the manufacture, machining and distribution of our precision components, we always pursue the highest standards. Junior Kühlkörper is ISO 9001, ISO 14001 and ISO 50001 certified in all areas. This standard of quality is assured by our fully integrated quality management system and skilled professional staff and has been generating customer confidence since 1982.



FLEXIBILITY
brings a competitive edge



PERFECT PROCESS PLANNING FOR EVERY SECTION

Integrated organisation, optimised processes and future-proof capacity. You can have confidence that your order will be smoothly managed – right down to the last detail at Junior Kühlkörper GmbH.

Junior Kühlkörper's high-rack storage provides storage capacity of approx. 2,500 parking bays – but for extruded sections! As a result, we can deliver all types of standard sections within 48 hours. We package your sections individually to ensure that they arrive in perfect condition.



FLEXIBILITY

Teamwork has a great importance for us.

We can implement nearly everything, actually even more than that.



WE
squeeze more out for you



ECONOMICAL RIGHT FROM THE START

Every year Junior Kühlkörper processes more than 4,500 tonnes of aluminium. With these volumes, we can achieve excellent cost-effectiveness right at the start of the value-added chain with intelligent purchasing and our industry expertise. What it means for you is better quality at lower cost.

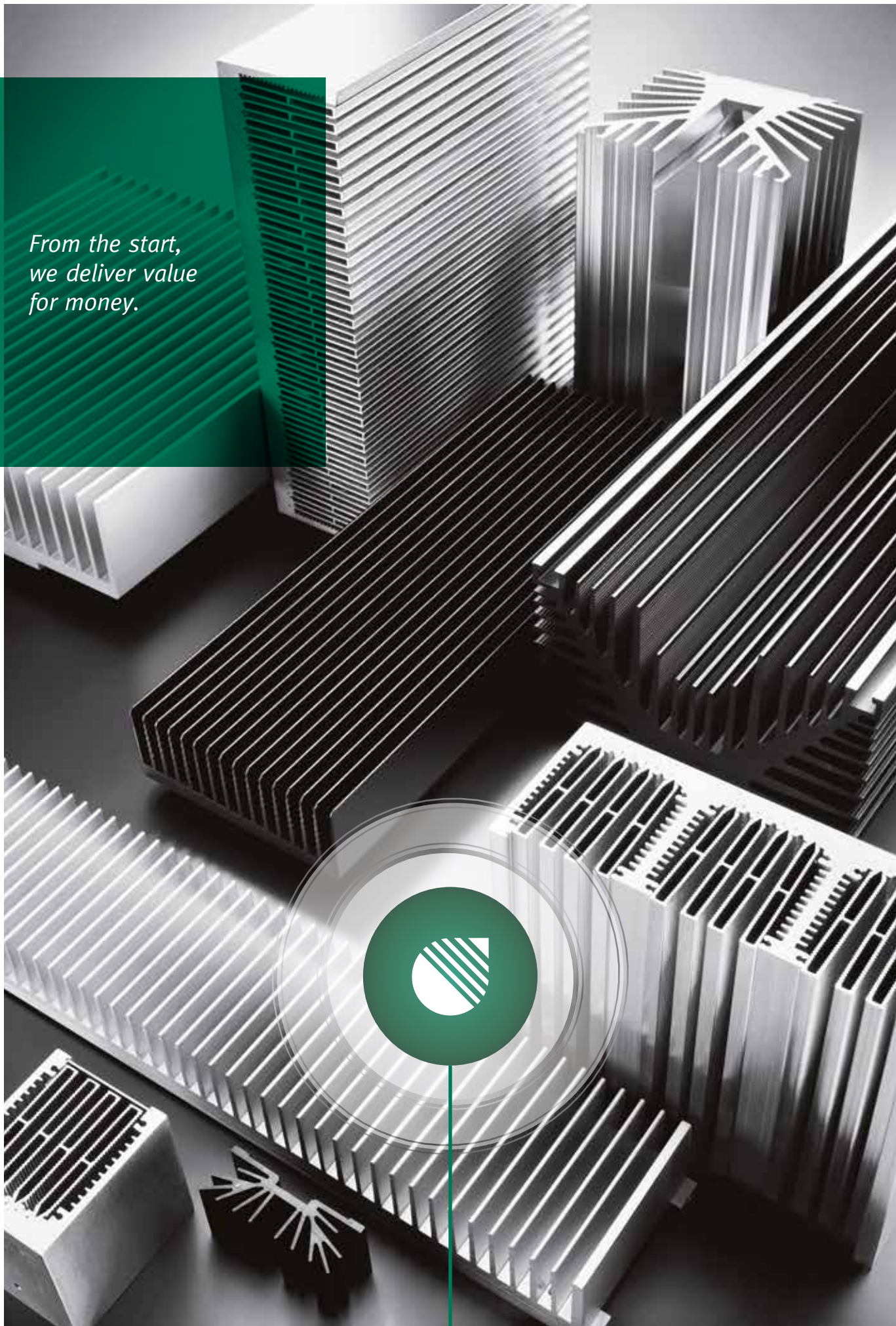
Our expertise and strength at Junior Kühlkörper lie in manufacturing customised precision components economically. To achieve this, we undertake continuous investment in highly efficient technologies and modern machinery.

The precise repeating accuracy of CNC machining centres ensures consistent product quality and extremely fast production processes.





*From the start,
we deliver value
for money.*



THINKING
ahead




THE FUTURE BUSINESS

As a future-led company, we act with the foresight this demands and are committed in the long term to our local region and the environment. The new 7,000 m² large welding facility with its green roof points the way to an upswing. Further investments into modern processing plants have cut the use of cooling lubricants in half.

SUSTAINABLE GROWTH

All the signs point to growth at Junior Kühlkörper. Junior Kühlkörper has a total production area of 8,000 m², exclusively designed for the customised machining of your sections. That is why we are the right partner to bring you success in the long term.





Today, sustainable development has a great importance. We rehash the oil which we used in our processes.

The Sauerland should stay green in the future too.

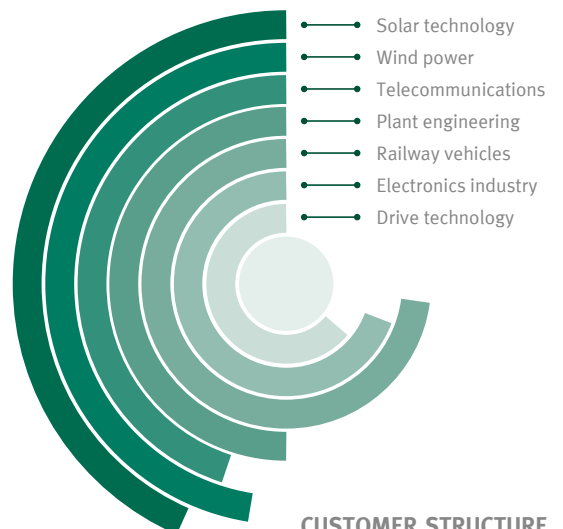


SATISFIED CUSTOMERS
make the best references



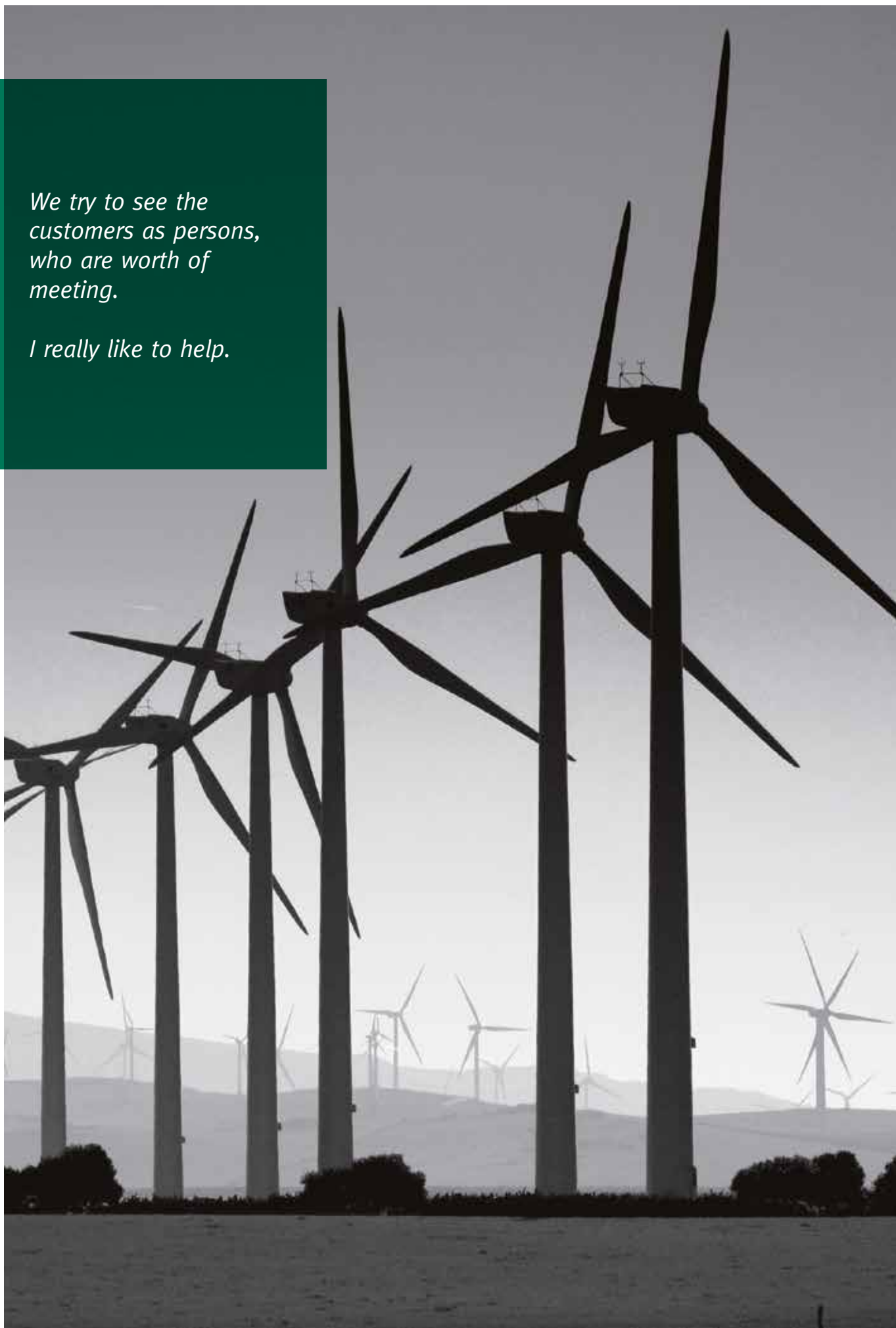
WE LOOK FORWARD TO ADDING YOU TO OUR LIST

You too can profit from our many years of experience and see for yourself what our expertise in the manufacture of top-quality precision components can do for you. With Junior Kühlkörper, you'll have a strong partner by your side who offers you a comprehensive service for all your requirements.



We try to see the customers as persons, who are worth of meeting.

I really like to help.



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Further company of the JUNIOR Group

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scaffolding and universal accessories

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