

# Shaping tomorrow

As a family-run company, we think in generations, not just business cycles – committed to making long-term decisions that benefit people, the planet, and our business.

Our Corporate Responsibility documentation provides insights into how Liebherr Appliances embeds sustainability across its operations, from energy-efficient appliances and responsible sourcing to circular economy initiatives and employee development. While we have made significant progress, we recognise that there is always more to do. Our goal is to continuously innovate, reduce our environmental impact, and contribute to a more sustainable future.





# Operating responsibly wherever we are

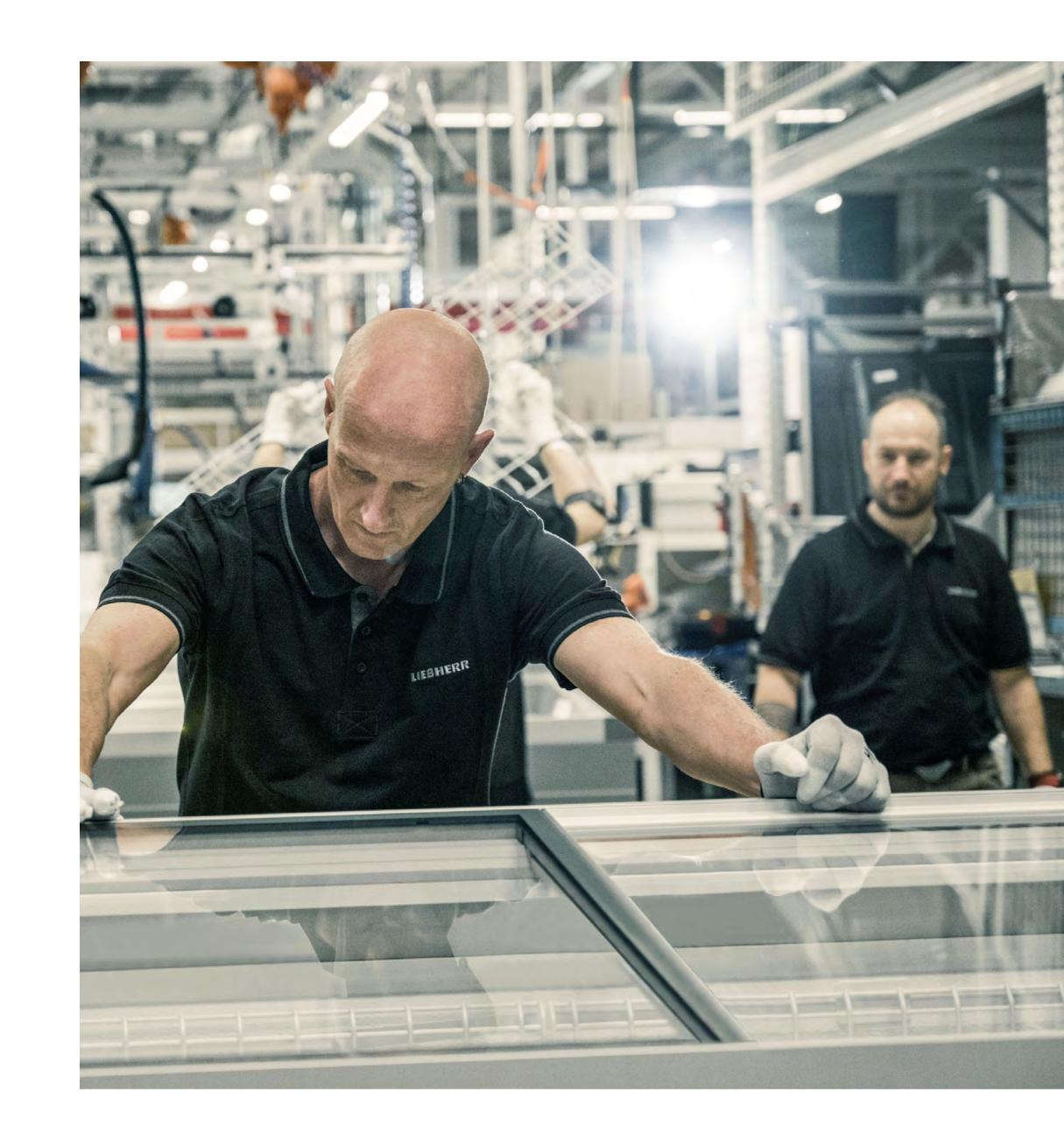
# An overview of our Liebherr Appliances production sites around the world

Liebherr Appliances' state-of-the-art production sites around the world are continuously working to uphold and improve our high standards of quality, sustainability, and innovation. Our facilities, located in Germany, Austria, Bulgaria, Malaysia, and India, each play a crucial role in delivering high-quality refrigeration and freezing solutions.

At every site, we integrate our commitment to environmental responsibility into each step of the manufacturing process. With a focus on

optimising energy efficiency, and reducing emissions, our production facilities contribute to our global vision of sustainable growth while also supporting local communities.

Our decentralised organisational structure allows each site to adapt to local market demands while maintaining a consistent commitment to sustainability and corporate responsibility across all locations.



# Liebherr-Hausgeräte GmbH production sites

# Words are good. Facts are better.

We have implemented certified environmental and energy management systems across many sites. Our focus is on energy efficiency, green power adoption, and reducing greenhouse gas emissions. For the whole Liebherr Group, an expert group on the topic of Corporate Carbon Footprint has been established to calculate and track Liebherr's emissions, covering Scope 1 (direct emissions) and Scope 2 (indirect emissions from purchased energy). Efforts are ongoing to consolidate data for Scope 3 emissions (indirect emissions from the value chain).

Our initiatives also extend to waste reduction, recycling, and sustainable water management, especially in high-stress areas. Employee health and safety are prioritised and supported by comprehensive training and compliance measures. We ensure responsible supply chain management and maintain sustainable logistics practices to minimise our overall impact.



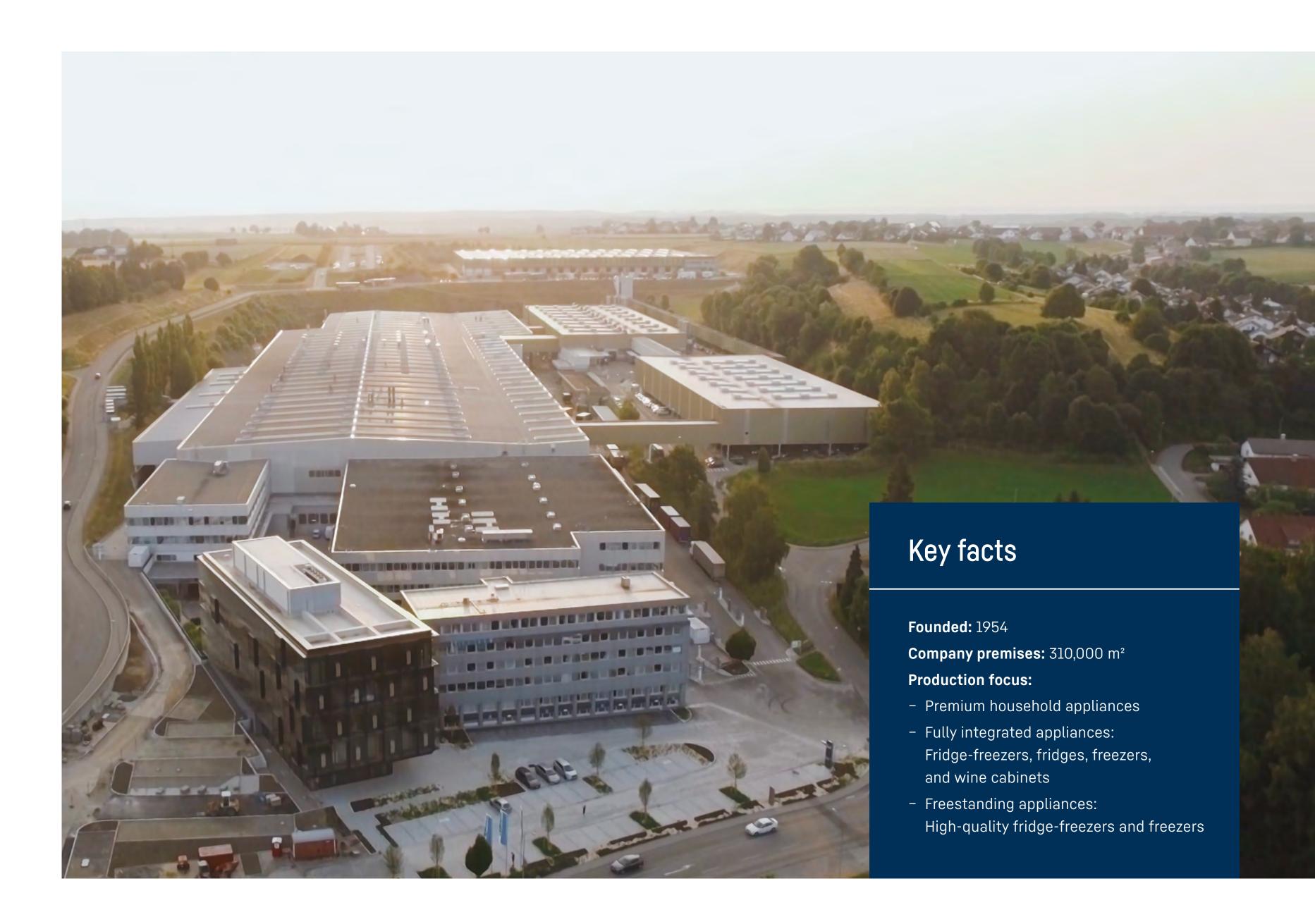
# Ochsenhausen, Germany

Founded in 1954, Ochsenhausen is the headquarters and largest production site of Liebherr appliances. With 2,045 employees (as of december 2024), the site produces premium fridges and freezers, including fully integrated and freestanding models. The continuous expansion has shaped the site, including the opening of a Customer Centre in 2019.

Sustainability is at the core of operations. The site runs on renewable energy, including a 2 MWp photovoltaic system, and achieves a 95 % recycling rate, based on the total volume of waste generated at the site. The employee suggestion scheme drives improvements in efficiency and environmental performance, ensuring continuous progress.

Ochsenhausen is dedicated to its community, supporting student career programs and hosting an engineering competition with local schools. In collaboration with the Kneipp Association, it has created a 10-hectare biodiversity biotope to enhance local ecosystems.

Additionally, the canteen reduced waste by eliminating plastic packaging, using locally sourced food, and donating surplus baked goods in perfect condition to the St. Martin's Food Bank in Ochsenhausen, which supports those in need.





# Lienz, Austria

Nestled in the stunning Dolomite mountains, the Lienz site has been a key Liebherr production facility since 1980. With 1,342 employees (as of december 2024) it produces energy-efficient refrigerators and freezers, catering to both household and professional markets. The focus is on high-quality, customisable appliances that prioritise sustainability and performance.

Lienz is a leader in environmentally responsible manufacturing in Austria, running on 100% green electricity since 2014 and using energy-efficient district heating. A deep well system efficiently supplies cooling water for production while preserving natural resources.

# Marica, Bulgaria

Founded in 1999, the Marica site near the historic city of Plovdiv has grown into one of our largest production facilities, employing approx. 1,800 people (as of december 2024). The site produces fridges and freezers for global and professional markets. Its strategic location in a historic trade region strengthens Liebherr Appliance's position in Europe.

Committed to sustainability, Marica maintains a 91 % recycling rate based on the total volume of waste generated at the production site. It operates a deep well water system, and monitors energy consumption with advanced tracking software. The site is also active in community initiatives, partnering with Plovdiv's city administration for environmental projects like "Active Green Day" annually.





# Kluang, Malaysia

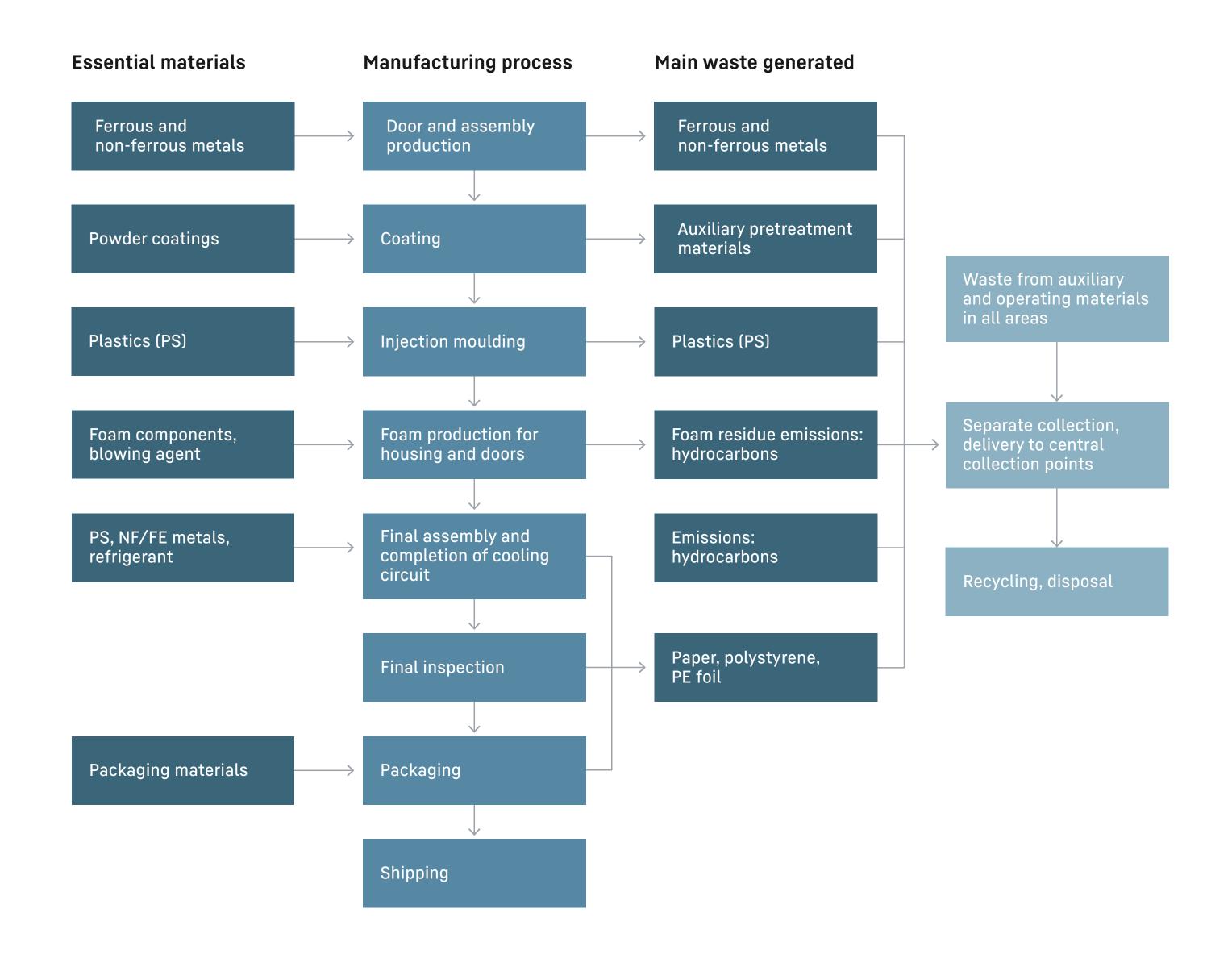
Since 2007, the Kluang site has been an integral part of Liebherr's production network, focusing on professional refrigeration for the Asia-Pacific markets. The site has around 350 employees (as of december 2024), strengthening Liebherr's regional presence.

# Aurangabad, India

Liebherr's newest production site opened in 2018 in Chhatrapati Sambhaji Nagar, formerly known as Aurangabad, India. The Government of Maharashtra officially renamed Aurangabad to Chhatrapati Sambhaji Nagar in 2023. This site specifically caters to the Indian market and spans 50 hectares, employing approximately 320 people as of december 2024. With an expandable production capacity, the site is well-positioned for future growth, reinforcing Liebherr's long-term commitment to the region. Sustainability is a growing priority here: in 2023, a 1 MW photovoltaic system was installed, and a rainwater collection system now captures 625,000 litres annually to help replenish groundwater and reduce water stress in the region.











# Key figures across our focus topics

Our commitment to responsible business practices, environmental stewardship, and employee well-being drives continuous improvement. While challenges remain, our progress reflects meaningful steps toward a more sustainable future.

We are committed to environmentally conscious production, reducing energy demand and increasing the use of renewable energy. Beyond carbon reduction, we minimise waste, manage water responsibly, and prevent contamination, ensuring our environmental impact is reduced across all areas of operation.

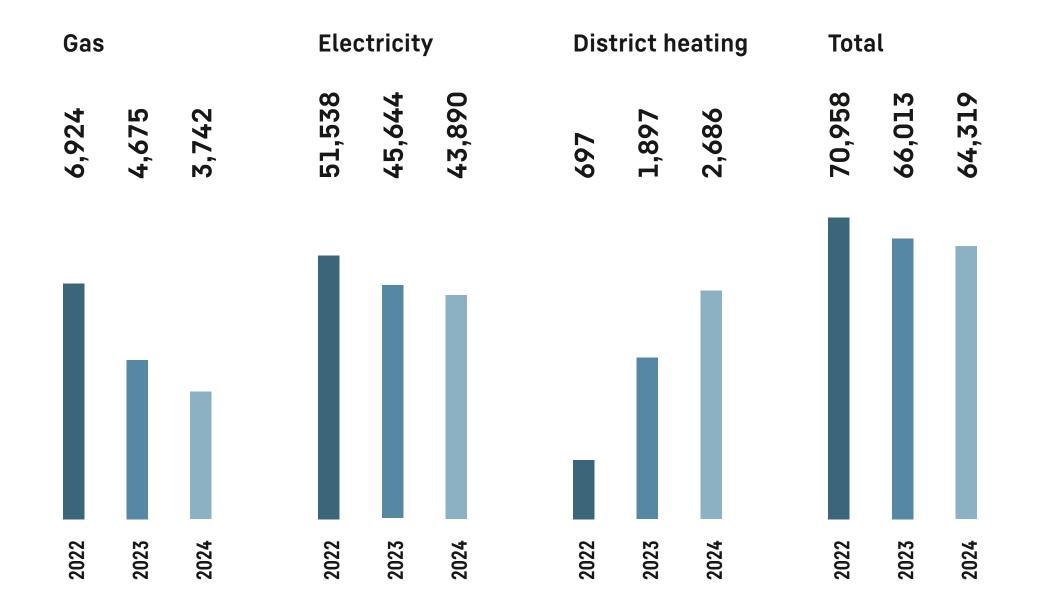
Corporate Responsibility Liebherr Appliances 2024
Production 15



# **Energy consumption**

Liebherr Appliances has reduced overall energy consumption by 9 % since 2022. To reduce energy consumption, ISO 50001-certified management systems track and optimise usage across its European sites (Ochsenhausen, Lienz, Marica). Further efficiency measures include building renovations, intelligent LED lighting, process optimisations, and a cross-site monitoring system to ensure continuous improvement of energy management.

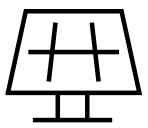
# Consumption of main energy sources in MWh\*



<sup>\*</sup>at all five production sites of Liebherr Appliances

#### **Key facts and measures**

- 9 % energy reduction (6,639 MWH) since 2022
- Monitoring and reporting:
   Tracks energy flows and efficiency
- ISO 50001 at our three European production sites
- Upgraded insulation and smart LED lighting
- Ochsenhausen: Energy storage and central heating
- Production site Lienz:
   Deep well system and district heating



# Expansion of renewable energy

Liebherr Appliances is expanding its use of renewable energy across its production sites. This includes photovoltaic systems, already installed in the factories in Ochsenhausen and Sambhaji Nagar (3 MW in total). The sites in Lienz and Ochsenhausen have been running on 100 % green electricity since 2014 and 2018.

Additional measures to promote renewable energy include self-generated solar water heating in Marica and the utilisation of air heat from compressed air and deep well water in Lienz.

We are continuously advancing our sustainability efforts by expanding the use of renewable energy across our production sites in the long term. These initiatives are a cornerstone of our strategy to reduce our carbon footprint.

# **Key facts and measures**

- Approx. 5,000 MWh generated from PV systems in Ochsenhausen since 2022
- 100 % green electricity at our sites in Lienz and Ochsenhausen
- Use of air heat by compressed air and deep well water for cooling at Lienz production site
- Marica: Self-generated solar water heating -11 MWh savings per year
- Aurangabad: 1 MW PV system, installed 2023



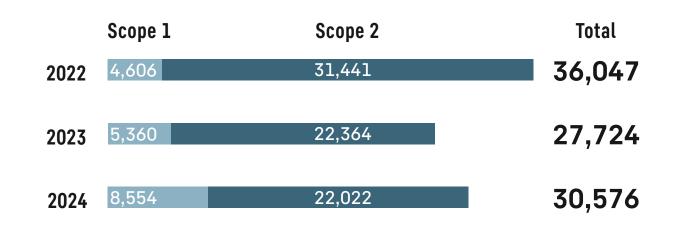


# CO<sub>2</sub> emissions

Liebherr Appliances' is committed to continuously reducing  $CO_2$  emissions in the coming years through targeted measures, with specific goals currently being defined. Our primary goal is to avoid and reduce  $CO_2$  emissions before considering compensation strategies. Our direct  $CO_2$  emissions (Scope 1) stem from gas and fuel used at our production sites, while indirect emissions (Scope 2) mainly result from electricity consumption and district heating.

In 2024, total  $CO_2$  emissions reached 30,576 tonnes, with 8,554 tonnes from Scope 1 (direct emissions from gas and fuel) and 22,022 tonnes from Scope 2 (indirect emissions from electricity and heating). To cut emissions, we are switching to green electricity – already in place at the production sites in Lienz and Ochsenhausen – and expanding renewable energy like photovoltaic systems.

#### CO<sub>2</sub> emissions\*



\* at all five production sites of Liebherr Appliances in tonnes CO<sub>2</sub> eq

#### Key facts and measures

- -15 % CO<sub>2</sub> emission reduction since 2022 (5,471 t)
- Direct CO<sub>2</sub> emissions (Scope 1): 8,554 tonnes (2024)
- Indirect CO<sub>2</sub> missions (Scope 2): 22,022 tonnes (2024)
- 100 % green electricity at Lienz and Ochsenhausen production sites
- Monitoring and reporting: CO<sub>2</sub> emissions tracked across sites, with KPIs for energy intensity and plant base load.

Compared to the year 2022, Liebherr Appliances were able to reduce  $CO_2$  emissions in Scope 1 and 2 by approximately 15 %. The data points and measurement bases of the environmental indicators presented have been gradually adjusted between 2022 and 2024. The increase in Scope 1 emissions from 2023 to 2024 is primarily due to energy sources for internal production processes and process adjustments.

We are also improving the energy efficiency of our appliances, optimising processes to use less gas and compressed air, and making logistics more sustainable through regional sourcing and efficient lorry loading. These are measures that contribute to reducing Scope 3 emissions, which currently cannot yet be fully tracked comprehensively. Efforts are ongoing to consolidate data for Scope 3 emissions.

Scope 3 emissions include all indirect emissions across a company's entire value chain – from the production of purchased goods and services to transportation, business travel, employee commuting, product use, and disposal. Additionally, we closely monitor CO<sub>2</sub> emissions through cross-site reporting, and key performance indicators, ensuring continuous progress toward a lower carbon footprint.

Corporate Responsibility Liebherr Appliances 2024
Production 18

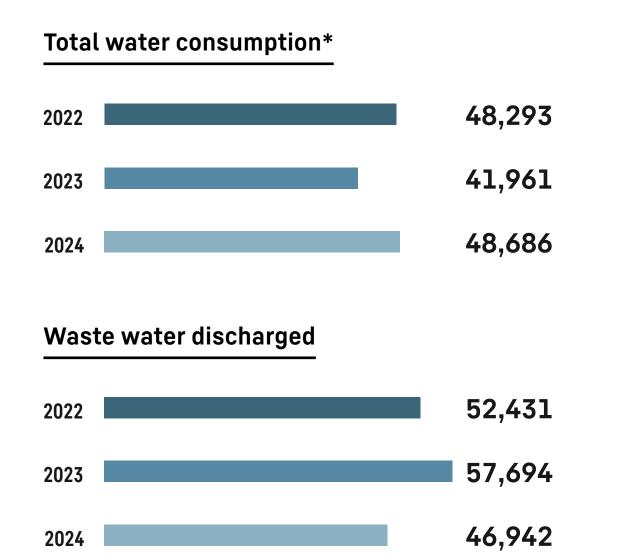


# Water

Liebherr Appliances is committed to conserving natural resources and using water responsibly. Since 2022, measures such as optimised cooling, reduced paint water use, and process water recycling have helped maintain water consumption at a sustainable level (-1 %).

Our production sites in Lienz and Marica use well water alongside public supply. The Lienz site has sourced cooling water from a deep well since 2013, returning it via a dual-circuit system with a heat exchanger to prevent groundwater contamination. This well also irrigates green spaces and cools server rooms. A rainwater collection system in Sambhaji Nagar captures 625,000 litres annually from the roof, helping to replenish groundwater and mitigate water stress in the region.

Waste water discharge at the sites in Ochsenhausen, Lienz, Marica, and Kluang, totalled 46,942 m³ in 2024, all carefully monitored. Comparable data for India was not available due to local specificities. Ongoing efforts, such as expanding well water use and installing groundwater heat pumps, support sustainable water management.



\* at the Ochsenhausen, Marica, Lienz and Kluang production sites in m³ water consumption without well cooling of the production site in Lienz. The European Sustainability Reporting Standards (ESRS) define this as water consumption, although no water is contaminated. This would lead to a higher number in the water consumption.

The water consumption following the ESRS would be:

2022: 824,749 2023: 837,048 2024: 844,130

## **Key facts and measures**

- Deep well at our sites in Lienz and Marica
- Rainwater collection system at our site in Aurangabad



# Waste

We firmly believe in closing the loop — minimising waste and keeping valuable materials in use for as long as possible. By prioritising circularity, we are reducing waste, optimising disposal processes, and increasing recycling rates to preserve resources and lower our environmental impact. Through process optimisations and production adjustments, we were able to reduce the total amount of waste at the sites of Ochsenhausen, Lienz, Marica and Kluang from 9,888 tonnes (2022) to 7,999 tonnes (2024), which is approximately 19 %.

A key focus of our efforts was on reducing hazardous waste. Hazardous waste is subject to strict regulations and must be treated using special processes to prevent environmental damage. These include recycling, safe landfilling, incineration or chemical neutralization. Between 2022 and 2024, we successfully reduced hazardous waste across all production sites by 30 %, lowering it from 572 tonnes to 400 tonnes.

# Trend in total waste generated\*



## **Key facts and measures\***

- Total waste: 7,999 tonnes across all sites (2024)
- Reduction by 19 % since 2022 (1,889 tonnes)
- Hazardous waste reduced by 30 % from 572 tonnes to 400 tonnes (2022–2024).

\* at the Ochsenhausen, Lienz, Marica and Kluang production sites in tonnes

Accurate waste monitoring is essential to identify optimisation potential, reduce environmental impact, and ensure efficient resource management.

An example of our precise monitoring: In 2024, the Marica plant recorded a waste generation of 65.29 kg per tonne of production and 4.07 kg per appliance.

Liebherr Appliances works closely with recyclers to improve material recovery and reduce environmental impact. At the Ochsenhausen production site, a careful waste separation system has pushed the recycling rate close to 95 %. The factory in Lienz has optimised water use in powder coating, reducing waste disposal frequency. Marica's waste separation system enables 91 % of waste to be recycled, with minimal landfill contributions.



Liebherr Appliances is committed to enhancing its sustainability performance, as demonstrated by its EcoVadis rating, which evaluates corporate social responsibility across areas such as environmental impact, labour practices, ethics, and sustainable procurement.

EcoVadis, a leading global sustainability rating platform, assesses companies on environmental, social, and ethical performance. Liebherr Appliances consistently ranks among the top performers in its industry, particularly in environmental sustainability and responsible sourcing. This reflects our dedication to integrating corporate responsibility into our operations and continuously improving policies to reduce environmental impact.

Sustainability remains a key focus, with initiatives aimed at optimising resource efficiency, ethical supply chain management, and employee wellbeing. External evaluations provide valuable insights that support ongoing improvements in responsible business practices.

MORE ABOUT OUR ECOVADIS RATING

Liebherr Appliances holds several ISO certifications. These internationally recognised standards ensure that the company maintains high operational and sustainability benchmarks.

#### ISO 9001 (Quality Management):

This certification guarantees structured processes for maintaining consistent product quality, customer satisfaction, and continuous improvement. Regular internal and external audits ensure compliance.

#### ISO 14001 (Environmental Management):

This certification establishes a framework for reducing environmental impact, improving resource efficiency, and ensuring compliance with environmental regulations. It helps organisations implement sustainable practices and continuously enhance their environmental performance.

#### ISO 45001

#### (Occupational Health & Safety Management):

This certification ensures a structured approach to workplace safety, risk reduction, and employee well-being. It focuses on preventing work-related injuries and illnesses while promoting a safe and healthy work environment.

#### ISO 50001 (Energy Management):

This certification highlights the company's efforts to optimise energy use, systematically improve efficiency, and monitor energy flows across our European sites.

# ISO certifications at Liebherr Appliances production sites:

## Ochsenhausen (Germany):

ISO 9001, ISO 14001, ISO 50001, ISO 45001

#### Lienz (Austria):

ISO 9001, ISO 14001, ISO 50001, ISO 45001

#### Marica (Bulgaria):

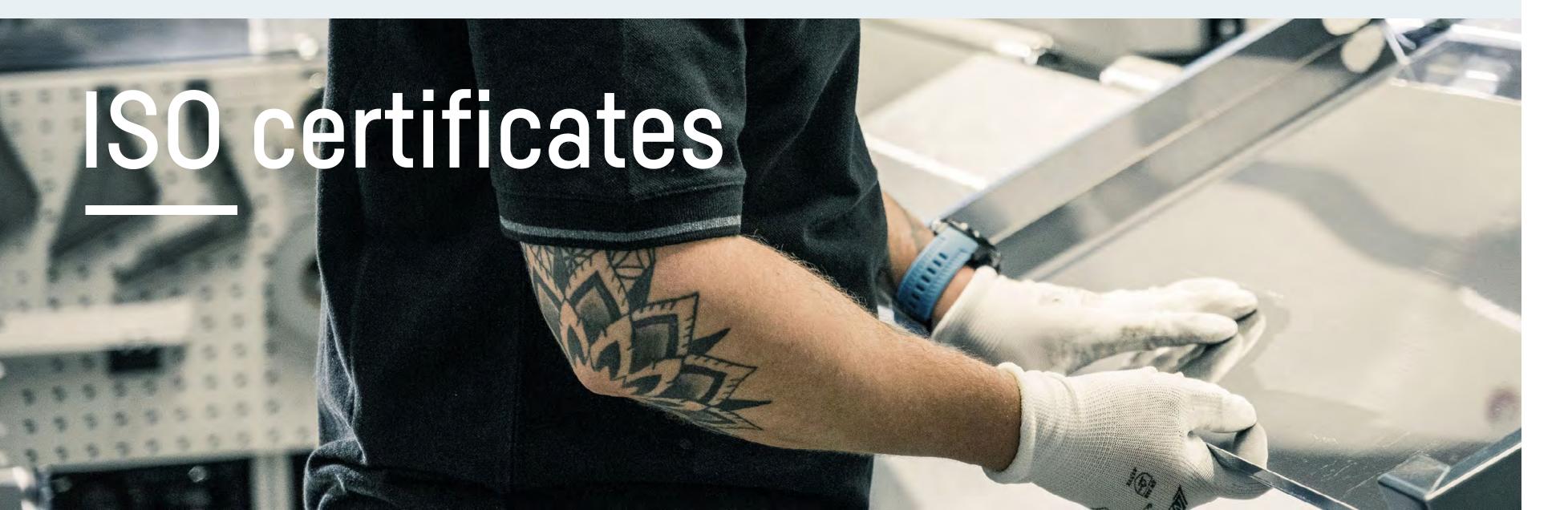
ISO 9001, ISO 14001, ISO 50001, ISO 45001

## Sambhaji Nagar (India):

ISO 9001

#### Kluang (Malaysia):

ISO 14001, ISO 9001



## View our certificates

ISO 14001:2015 DE

ISO 14001:2015 EN

ISO 50001:2018 DE

ISO 50001:2018 EN

ISO 9001:2015 DE

ISO 9001:2015 EN

ISO 45001:2018 DE

ISO 45001:2018 EN