Scope 2

Energy Reduction at Production Sites

To reduce CO_2 emissions from our operations, we are working to identify and visualize energy losses and reduce energy consumption.

The results of energy-saving measures at domestic business sites are compiled into a database, and best practices are also deployed and shared with overseas business sites. We are also enabling overseas business sites to register information in the database, thereby promoting bidirectional information sharing.

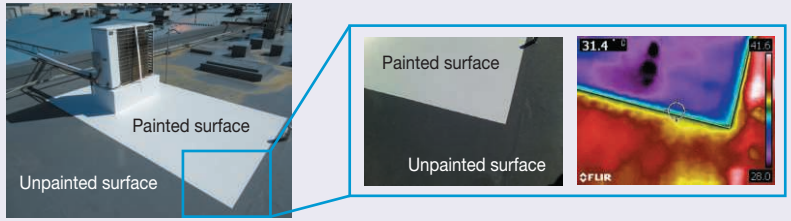
Additionally, since FY2023, we have introduced internal carbon pricing as an investment decision indicator for new capital investments, promoting low-carbon management.

Examples of Energy Reduction Measures

Improving Cooling Efficiency by Applying Heat-Shielding and Thermal-Insulation Coatings to Outdoor Air-Conditioning Units

- Applied heat-shielding and thermal-insulation coatings to outdoor air-conditioning units and the surrounding areas
- Improved cooling efficiency during summer and reduced electricity consumption
- Lowered the temperatures of the outdoor units and the intake air by more than 10°C
- Reduced electricity consumption by 20%

CO_2 Reduction
0.6 tons-CO_2/year
(per air-conditioning unit)



Reducing Electricity Consumption by Upgrading Water-Soluble Coolant Chiller Units

- Reduced electricity consumption by upgrading water-soluble coolant chiller units to energy-saving models
- Promoted energy savings by upgrading chillers for water-soluble coolant equipment supplying 90 grinding machines
- Electricity consumption: reduced by 44%



CO_2 Reduction
144 tons-CO_2/year

Scope 3

Initiatives to improve calculation accuracy

The NTN Group aims to achieve carbon neutrality, including supply chain emissions (Scope 3), by FY2050. To promote CO_2 reduction across the supply chain, we have newly established a working group responsible for planning and implementing reduction measures, and are actively advancing related initiatives. Among all Scope 3 categories, Category 1: "Purchased goods and services" accounts for the largest share of emissions. The majority of these emissions stem from the procurement of raw materials such as steel and semi-finished products including forgings and machined components. Therefore, we first conducted an emission survey targeting steel manufacturers, taking into account differences in production methods. We are also conducting similar surveys of suppliers of semi-finished products, reviewing the emission factors used, and promoting global initiatives to more accurately assess and reduce emissions based on actual conditions.

Specific initiatives for collaboration with suppliers and logistics optimization

- **Procurement of CO_2-free steel materials**
  - Gathering information and promoting reviews
- **Requesting our suppliers to work toward carbon neutrality**
  - Sharing the background to our efforts to achieve carbon neutrality as well as our targets
  - Introducing energy conservation case studies
  - Collecting and visualizing CO_2 emissions data in dashboards
- **Enhancing efficiency during product transportation**
  - Reducing transportation distances by optimizing distribution routes
  - Enhancing loading efficiency by expanding the use of modular packaging
  - Reducing the number of containers by increasing the loading ratio of export containers
  - Reuse and recycling (repair) of wooden pallets

CO_2 emissions in logistics (Domestic)

