

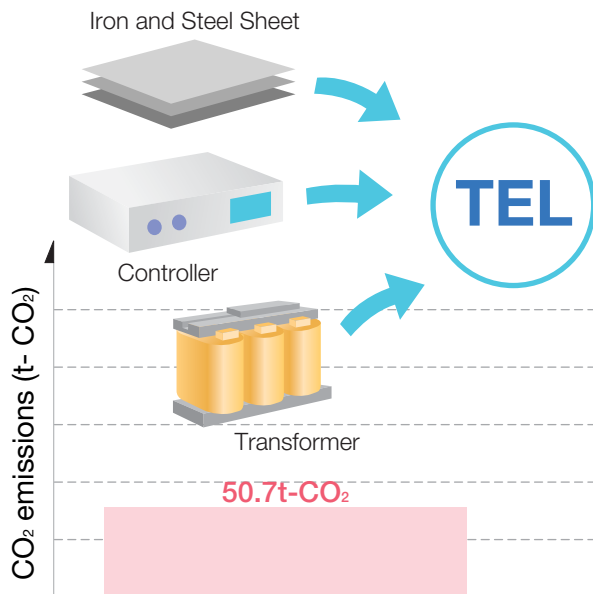
TEL and Environmental Impact

At TEL, we analyze the environmental impact of our products, and use that information in ongoing efforts to reduce the impact.

● Life Cycle Assessment Results for Each TELFORMULA Thermal Processing System

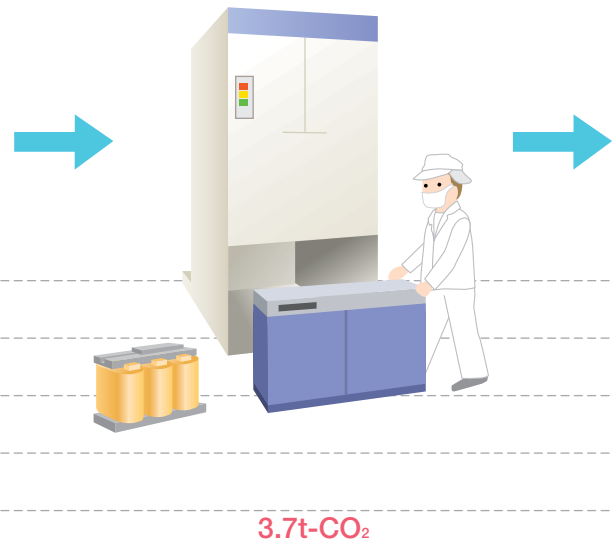
Procurement

Parts number in the tens of thousands. Each complete unit weighs up to one or two tons.



Manufacturing and Assembly

The system is manufactured in a cleanroom* like the one where the equipment will actually be used. Impact are mainly related to energy consumed as electricity for inspection, and gases used in testing processes.



*Cleanroom: A room designed to be completely free of dust and contaminants.

Environmental Impact of Our Products

TEL products are characterized by relatively low environmental impact during manufacturing, compared to the extremely large amounts of resources and energy consumed after being delivered to our customers, who then use the equipment to manufacture semiconductor devices. Because of this, we are working to find ways to reduce the environmental impact incurred during actual use of the equipment. In addition, because a variety of gases and chemicals are employed when the equipment is used, we pay the utmost attention to the issue of safety.

Meanwhile, many of the Earth's resources are used for procuring the raw materials needed for manufacturing, assembly and delivery of equipment. We are making an effort to reduce the environmental burdens throughout the life cycles of these materials as well.

Input and Output of TEL

The material flows of TEL are illustrated in the figure on the right. The figures shown are the combined totals for production and administrative facilities. Here are a few of the most noteworthy features:

- The equipment assessment process is more of an environmental burden than the equipment manufacturing and assembly processes.
- Compared to the above, the amounts of energy used and waste emitted (including liquid waste) during manufacturing and assembly processes are relatively small.

The big part of environmental burden during equipment assessment occurs because electricity and a variety of gases and chemicals are used to assess equipment, using processes similar to those employed during actual semiconductor production.

Delivery

To maintain cleanliness, special packaging materials are used for transporting the equipment. For ground transportation, special vehicles are used that minimize vibration. For shipping overseas, aircrafts or ships are used.



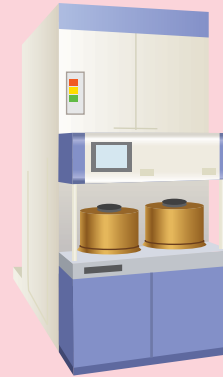
1.5t-CO₂



Use

1878.1 t-CO₂ (over ten years)

The semiconductor production equipment is installed in cleanrooms, and most of it is operated 24 hours a day for mass production and to ensure stable operation. A variety of forms of energy and resources—electricity, chemicals, gases, pure water and so on—are used in the semiconductor production process.



The equipment is used for 10 to 20 years.

● Material Flows of TEL

