

# Semiconductor industry

## Heat transfer solutions for the semiconductor manufacturing industry

In the microelectronics industry a semiconductor fabrication plant (commonly called a fab) is a factory where devices such as integrated circuits are manufactured. A business that operates a semiconductor fab for the purpose of fabricating the designs of other companies, such as fabless semiconductor companies, is known as a foundry. If a foundry does not also produce its own designs, it is known as a pure-play semiconductor foundry.

Fabs require many expensive devices to function. The central part of a fab is

the cleanroom, an area where the environment is controlled to eliminate all dust – even a single speck can ruin a microcircuit, which has features much smaller than dust. The cleanroom must also be dampened against vibration and kept within narrow bands of temperature and humidity.

Controlling temperature and humidity is critical for minimizing static electricity.

The following applications are all manufactured in a semicon fab:

**Microchips:** Manufacturing of chips with integrated circuits.

**LED lighting:** Manufacturing of LED lamps for lighting purposes.

**PV industry:** Manufacturing of solar cells, based on Si wafer technology or thin film technology.

**Flat panel displays:** Manufacturing of flat panels for everything from mobile phones and other handheld devices, up to large size TV monitors.

**Electronics:** Manufacturing of printed circuit boards (PCB), computer and electronic components.

## Semiconductor plant

