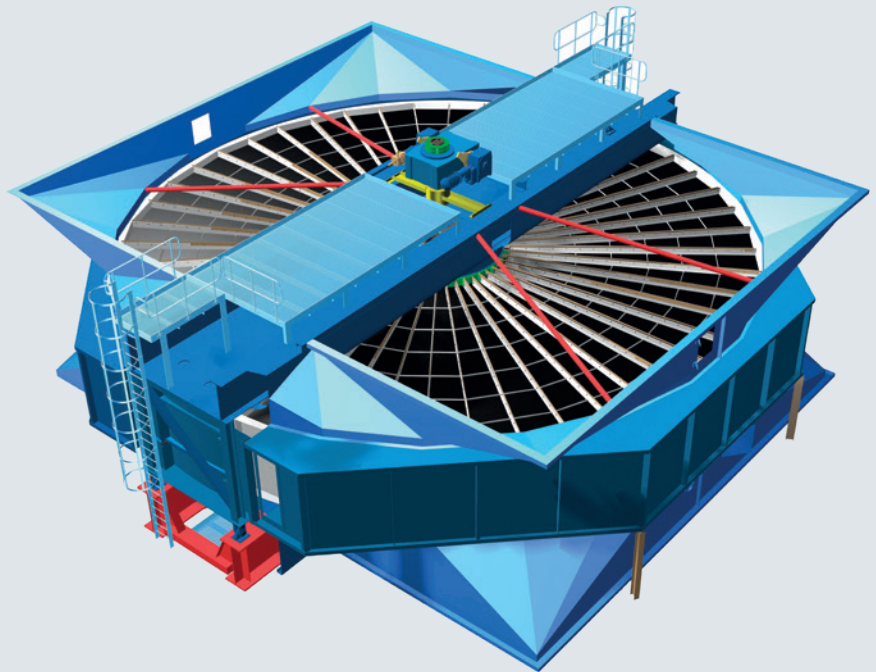




Our gas gas heaters support our customers to achieve their sustainability commitments **by reducing emissions and improving environmental stewardship.**



## United Nations Sustainable Development Goals

**7** AFFORDABLE AND CLEAN ENERGY



We support our customers' drive for environmental efficiency, reduction of emissions and switch to renewable energy.

**9** INDUSTRY, INNOVATION AND INFRASTRUCTURE



Build resilient infrastructure, promote inclusive and sustainable industrialisation and foster innovation.

Gas gas heaters support our customers and their commitments to the **United Nations Sustainable Development Goals.**

**During the Selective Catalytic Reduction (SCR) and Flue Gas Desulphurisation (FGD) processes, hot exhaust gasses are treated to minimise the impact of nitrous oxide and sulphur dioxide on air quality.**

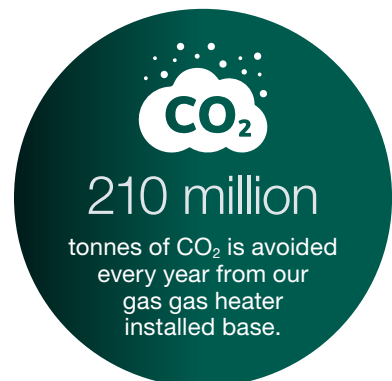
Our gas gas heaters are used to exchange heat within these important air quality processes. This reduces their energy requirements, improves efficiency and reduces the carbon dioxide (CO<sub>2</sub>) emissions generated.

## Environmental benefits of gas gas heaters

CO<sub>2</sub> is a major cause of global warming, One gas gas heater avoids 64,000 tonnes of carbon emissions from flue gas. Nitric oxide forms nitric acid in the air, causing acid rain, poor air quality and smog. Our gas gas heaters enable the removal of 90% of nitrous oxide from a plant, which significantly improves the air quality in surrounding areas.

In FGD applications, gas gas heaters extract heat from the untreated gas and use this to reheat the treated flue

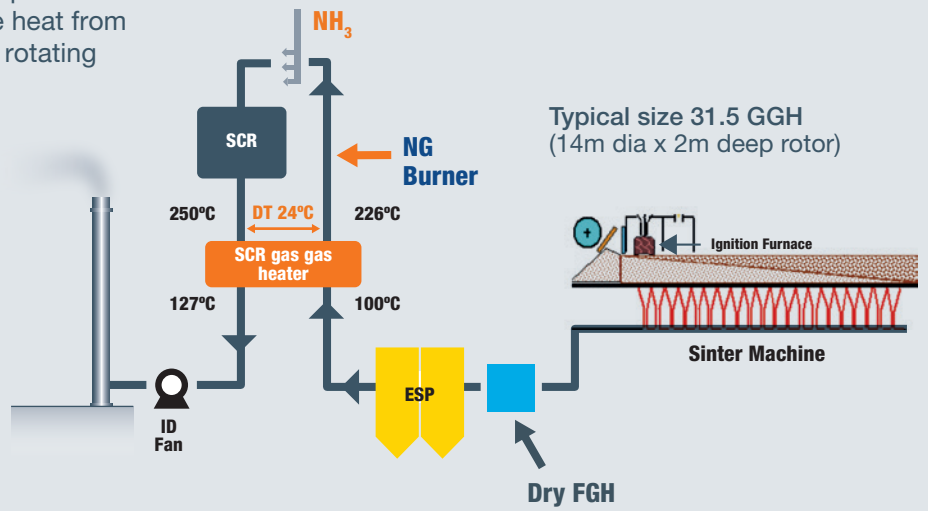
gas, preventing droplets containing sulphur falling in the local area.



Our heaters operate in energy intensive industries such as power generation, steel and cement production. Rotary air preheaters absorb the waste heat from the flue gas and transfer this energy to rotating steel heat transfer element plates.

The hot elements then rotate into the inlet air used to provide the oxygen to fire the fuel to the boiler, heating the gas to temperatures up to 340°C. This improves the efficiency of the plant as energy is transferred back to the furnace, thus saving fuel.

Gas gas heaters can be up to 24 metres in diameter and have a rotating weight of 1,350 tonnes.



## Environmental commitment

### The contribution of Howden products to reducing our customers' carbon footprint significantly outweighs our own carbon footprint.

Our carbon footprint (baselined in 2020) is just over 28,000 tonnes per year. We are committed to reducing this by 50% by 2030, and to be carbon net zero by 2035.

We will achieve these targets by switching to carbon free energy, focusing on energy conservation and the continual development of more energy recovery initiatives.

We use the Greenhouse Gas (GHG) reporting protocol framework to capture our Scope 1 and Scope 2 emissions and have joined the Carbon Disclosure Project. We also disclose to our supply chain partners through the Ecovadis platform.

By 2030 we intend to send Zero Waste to Landfill at 50% of our operations and by 2030 reduce mains water usage by 30% across our company.



#### For further information:

**Gas Gas Heaters** | [howden.cloud/PSP-GGH](https://howden.cloud/PSP-GGH)

**Howden's ESG commitments** | [howden.cloud/PSP-ESG](https://howden.cloud/PSP-ESG)

