

The HBI direct reduction process

voestalpine in Texas

HBI (Hot Briquetted Iron) = porous sponge iron, pressed into briquettes

HBI is the product of reducing iron ore with natural gas

1

Raw material iron ore pellets

Iron ore pellets – the raw material – are fed into the reactor

2

Natural gas is converted into reducing gas

Natural gas is converted into reducing gas and then injected

Reducing gas circulates in a closed system and is recycled

3

The direct reduction process

Hot reducing gas flows through the iron ore, from the bottom to the top, according to the counterflow principle

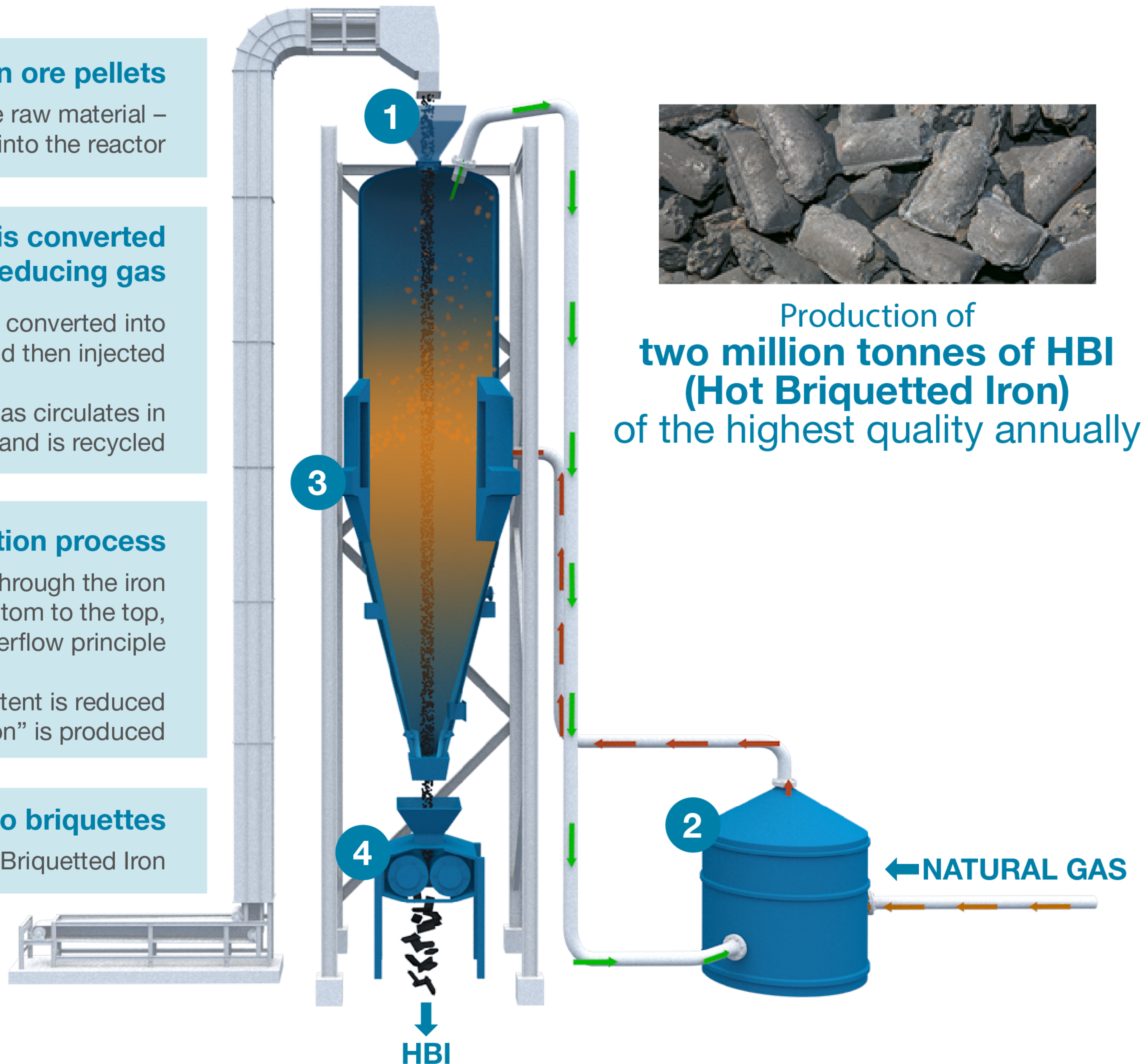
Oxygen content is reduced = “sponge iron” is produced

4

Pressed into briquettes

HBI = Hot Briquetted Iron

PELLETS →



Production of **two million tonnes of HBI (Hot Briquetted Iron)** of the highest quality annually

Environmentally-friendly process

- Using natural gas instead of coke
- The reduction process takes place in a closed reactor
- Process gases are recycled and the heat recovered
- Enclosed conveyor belts and ore storage warehouses keep diffuse dust emissions to a minimum
- Maximum raw materials efficiency and minimal emissions through recycling collected dust

