




Atlas Copco



Atlas Copco
Gas and Process
sCO₂ Symposium

Feb 27, 2024
Atlas Copco Gas and Process



This is the Atlas Copco Group



Customers in more than **180** countries



49 000 employees in **70** countries



Established in **1873** Stockholm, Sweden



Turnover of **141** BSEK/ **13.5** BLN USD*

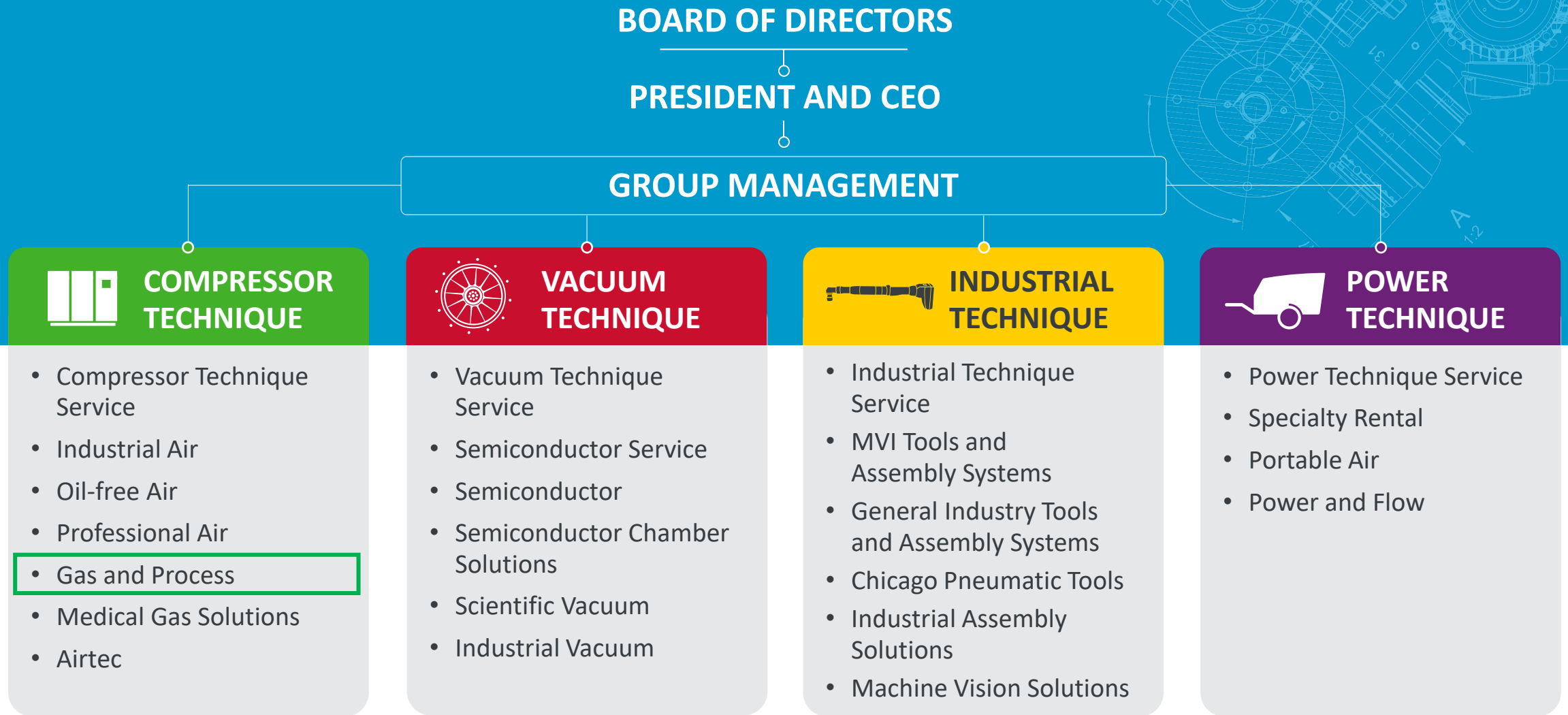


Operating margin of **21.4%**

*Based on the average exchange rate in 2023.

Atlas Copco

A decentralized Group



Global Structure

Atlas Copco Gas and Process Division

Headquarters: **Cologne**



Global Climate and Human Health Protection

Starting in 1984, Atlas Copco has supported with technology to reduce carbon footprint.

Oxy combustion projects

Geothermal, heat to power and pressure let down

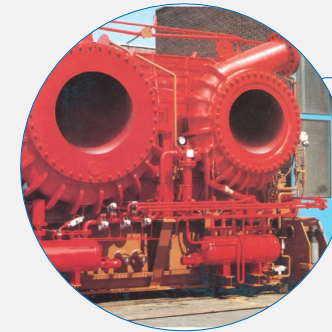
Heat pumps and CO₂ compression



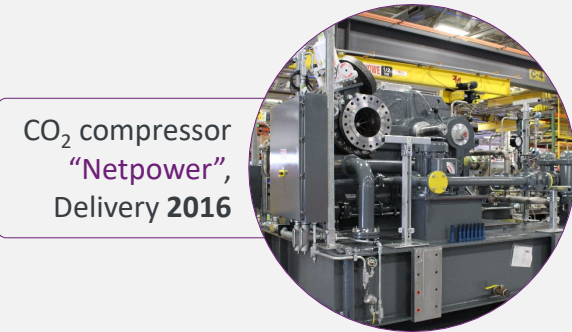
CO₂ compressor "Callide", Delivery 2008



Geothermal "Stillwater", Delivery 2007



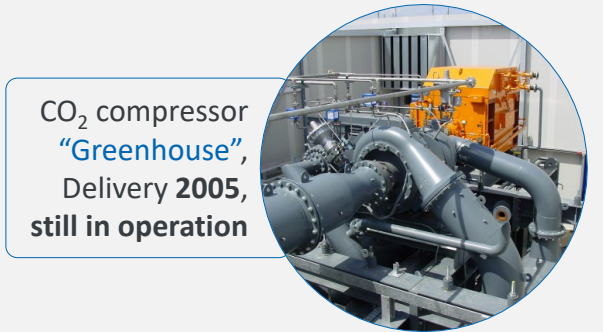
Heat pump "Rya", Delivery 1984, still in operation



CO₂ compressor "Netpower", Delivery 2016



Energy Storage "Raygen", Delivery 2023



CO₂ compressor "Greenhouse", Delivery 2005, still in operation

Technologies are required to support **new, emerging and sustainable energy sources**

Global Climate and Human Health Protection

Technologies are required to support **new, emerging and sustainable energy sources**

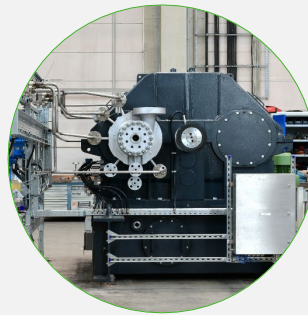


Increased amount of CO₂ & sCO₂, H₂, LNG and energy storage related projects

Turboexpanders for Hydrogen Liquefaction



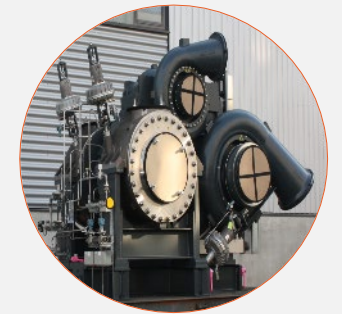
compressor / expander in sCO₂ cycle / energy recovery



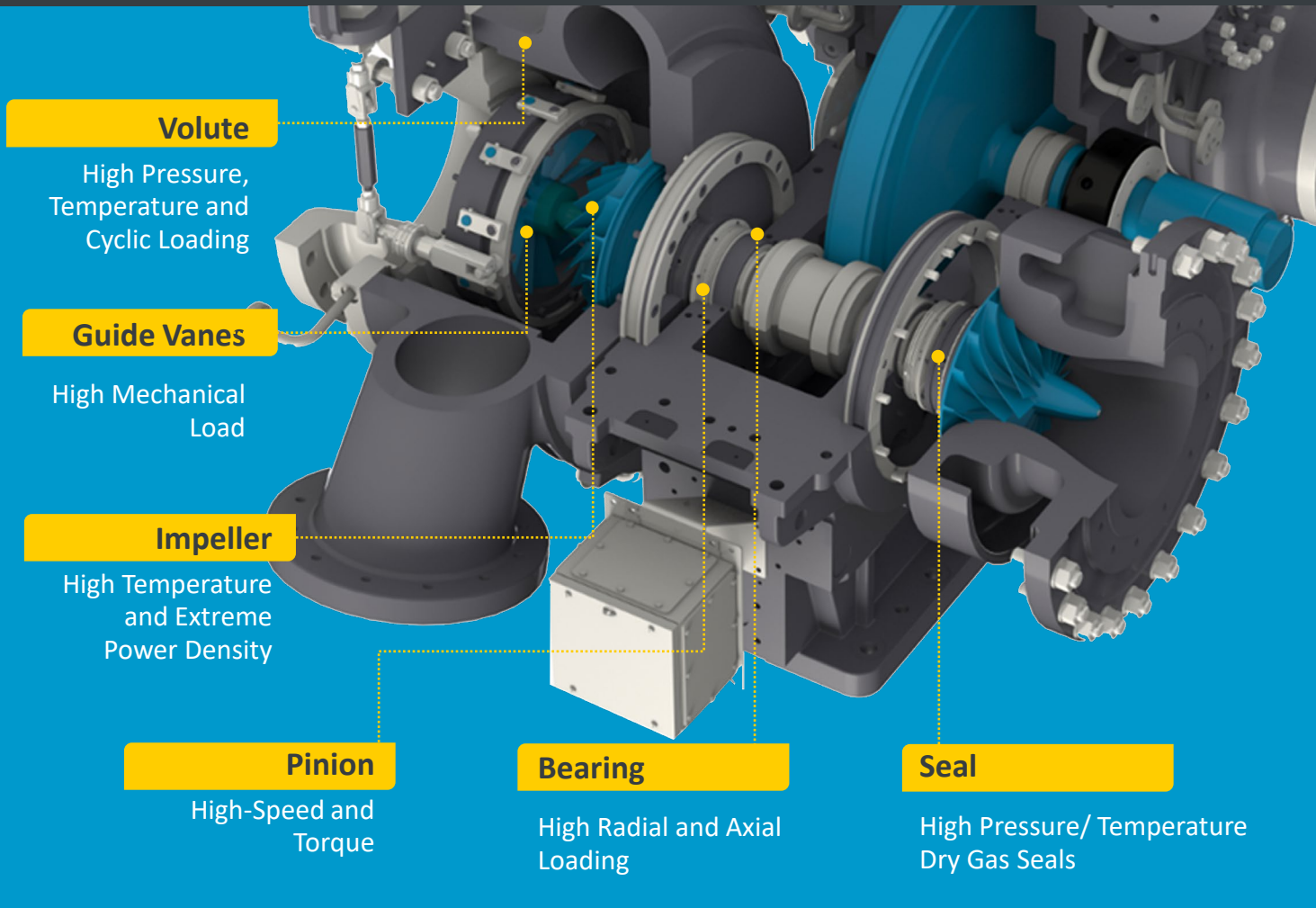
Single stage compressor for H₂ BOG



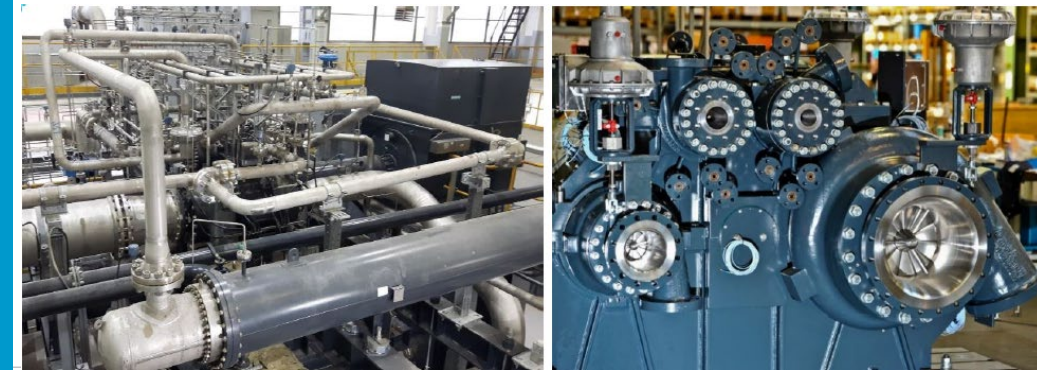
Turbomachinery for Thermal Storage



sCO₂ Solutions | Leveraging Decades of CO₂ Experience

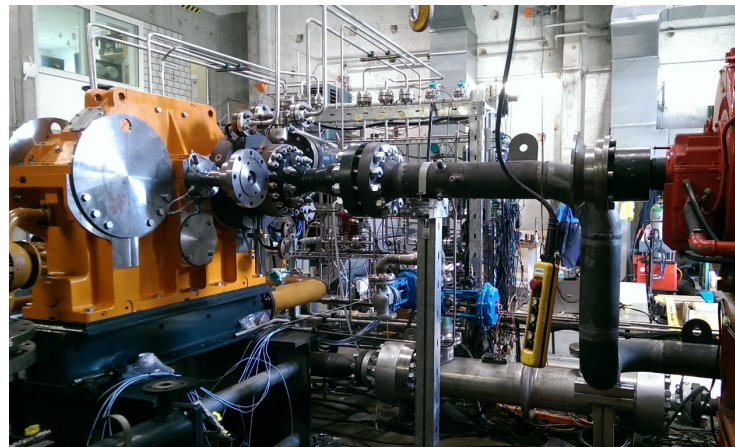
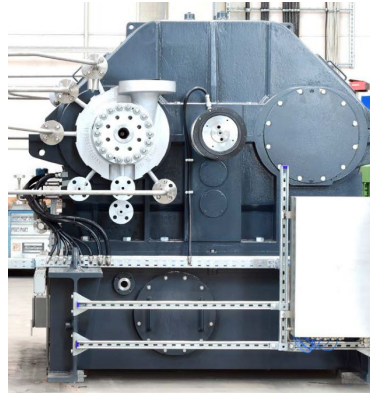


	High Pressure CO ₂ Reference
Year Ordered	2013
Compressor Type	GT050T8S1
Gas Handled	CO ₂
Volume	21 999 m ³ /hr / 14 125 ACFM
Inlet Temperature	45°C / 113°F
Inlet Pressure	1.06 bara / 15.3 psia
Discharge Pressure	202 bara / 2930 psia
Speed	18030 / 32460 / 36070 / 37455 RPM
Power	5150 kW / 6910 HP

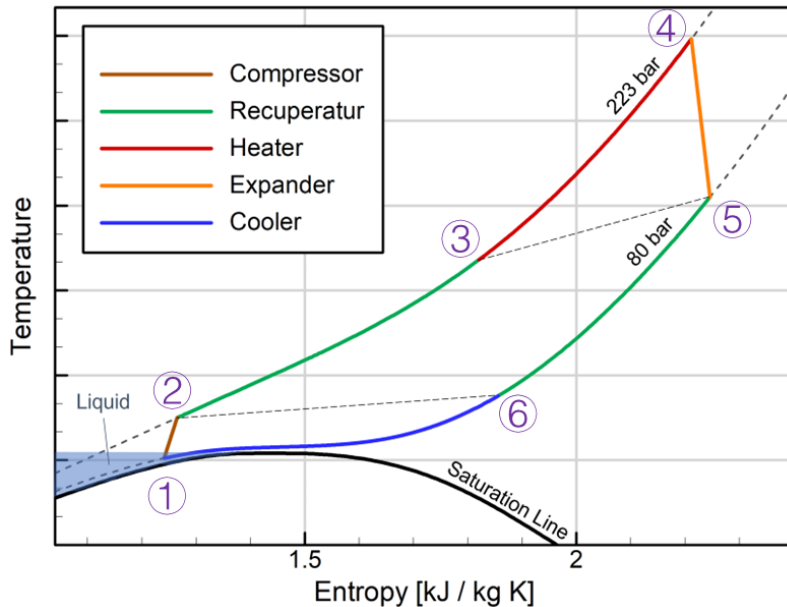


Product Spotlight | Componder for sCO2 Power Plant

High Pressure
Integrally-
geared
Componder



	Compressor	Expander
Shaft Sealing	Dry Gas Seal	
Speed	38 000 RPM	
Mass Flow	174 600 kg/h / 385 000 lbs/hr	
Impeller Diameter	104 mm / 4.1"	150 mm / 6.0"
Inlet Pressure	80 bara	223 bara
Inlet Temperature	28°C / 82°F	275°C / 530°F
Power	2 MW net	



High pressure compressor and expander
design for power cycle **successfully tested**

sCO2 componder technology is ready for
plant sizes up to approx. 10MW. See us
about other configurations!

Shown **demo unit is for sale**, ask us in case
of interest!



Thank you!

See us with questions!



Louis Mann
Marketing and
R&D Manager



Chris Blackmer
New Energy & Olefins
Applications Manager

Atlas Copco

