Ensuring reliability and availability for your plastics production

With decades of chemical and petrochemical experience, Atlas Copco Gas and Process centrifugal compressors handle the complex challenges of the polyolefins industry.

HANDLE THE PRESSURE.

Atlas Copco

From automotive, packaging, building and construction to consumer goods, plastics are vital to many areas of our everyday lives. And with the world's population growing, they are replacing many other materials. Based on complex chemical and petrochemical processes, polyolefins are one of the key building blocks in plastic materials production. Atlas Copco Gas and Process draws from its broad experience in driving critical processes using integrally-geared and non-geared centrifugal compressors to handle the complex challenges and needs of process licensors and end users – both safely and reliably.

Experience at work

From the United States and the Middle East to Russia and China: Time and again we have delivered **maximum compressor efficiency and robustness** in complex and rigid polyolefin processes, driving the gas phase in some of the world's most demanding plastic-producing applications.

Depending on your process, our experts around the globe can customize your turbocompressors and turboexpanders to **boost the reliability and availability** of your operation – or draw from our portfolio of standardized solutions.

Serving this market, we comply with codes and regulations including:

- API 617
- API 614
- ERC Russia
- CSA/CRN

99% *turbocompressor availability*

200+ *references in polyolefin applications*

50+ *years of experience handling downstream applications with our compressors*

In every chemical and petrochemical processes running at the heart of your plant – you require **robust and reliable compressor solutions** that safely handle your gas stream. After all, a stable supply gas is critical for sustainable production and maximum uptime in your plant.

Operating in challenging plant environments and facing risks such as polymerization to your equipment, you need a partner with **proven experience and competence** in areas such as fouling services.

To that end, Atlas Copco Gas and Process' tried-and-trusted technology is the backbone of efficient, safe, and reliable productivity in your plant **(99 percent availability)**.

Designed for maximum availability

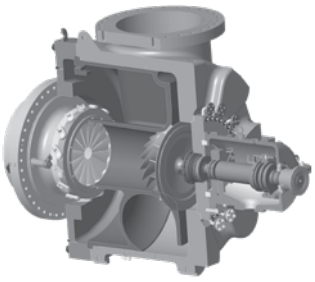
Our engineering and manufacturing expertise unlocks a high level of aerodynamic performance and mechanical reliability.

Critical components such as **impellers, casings, guide vanes, shaft seals, gears and bearings** are anchored in proven, field-tested designs. The entire compressor stage is designed to prevent polymerization in your equipment.

A dry face seal in deployment

Inlet guide vanes provide maximum control over flow rates.

Simple concepts for superior maintainability



With its proven design features and maintability concepts, Atlas Copco Gas and Process solutions are the right match for the challenging requirements in your polyolefin plant.

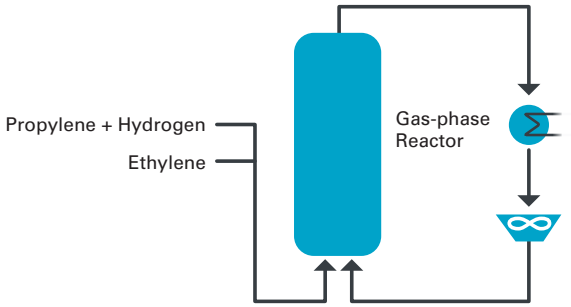
Our **smart plug-in design** for direct-driven compressors enables easy access to all rotating parts such as dry face seals, impellers, bearings or vibration probes. For maintenance, the bearing carrier can be pulled from the back. In turn, this ensures a **maximum level of compressor maintability**, and ultimately improves the **availability** of your overall plant.

Applications served:

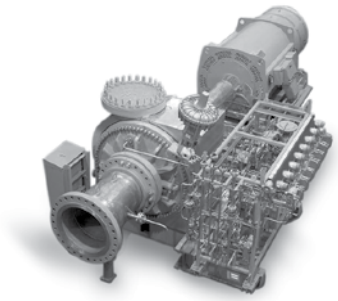
Polyethylene/ Polypropylene	Ethylene Oxide/ Ethylene Glycol
Cycle Gas Compression[2]	Residue Gas Compression[1]
Ejector Boosting[1]	CO_2 Make-up Gas[1]
Main Loop Compression[2]	CO_2 Recycle Gas[1]

[1] Uses integrally-geared compressors, [2] Uses direct-driven compressors

Typical propylene process flow diagram:



Reference applications in polypropylene/polyethylene



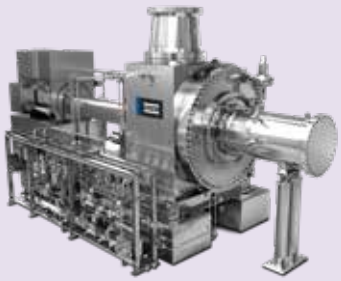
Cycle Gas for Polyethylene

Gas: Ethylene Mix
Flow: 54,000 m³/h
Inlet pressure: 22.2 bar a
Outlet pressure: 25.3 bar a
Inlet temperature: 39.5 °C
Code: API 617 and API 614 (oil system), latest edition

Ejector Boosting for Polyethylene

Gas: Ethylene Mix
Flow: 38,000 Nm³/h
Inlet pressure: 24.8 bar a
Outlet pressure: 27.5 bar a
Inlet temperature: 45 °C

New!



Standardized Cycle Gas Compressor for Polypropylene

Gas: Propylene Mix
Flow: 39,000 Nm³/h
Inlet pressure: 15 bar a
Outlet pressure: 15.95 bar a
Inlet temperature: 80 °C
Code: API 617 and API 614 (oil system), latest edition

Committed to sustainable productivity

We stand by our responsibilities towards our customers,
towards the environment and the people around us.
We make performance stand the test of time.
This is what we call – Sustainable Productivity.

Atlas Copco Gas and Process Division
Schlehenweg 15, 50999 Cologne, Germany
www.atlascopco-gap.com

Atlas Copco