

The Atlas Copco logo is located in the top right corner of the page. It consists of the company name "Atlas Copco" in a white, serif font, centered between two horizontal white bars. The background of the logo is a teal square.The main image of the advertisement is a large, industrial turbocompressor. It is a complex piece of machinery with a dark grey, cast-iron housing. The central part of the machine is a large, circular opening that reveals a complex, multi-bladed turbine assembly. The machine is mounted on a heavy, dark metal base. In the background, other industrial equipment and a factory setting are visible, though slightly out of focus. A teal diagonal graphic element is overlaid on the bottom left of the image, containing technical drawings and the main title.

Integrally-gearred Turbocompressors

Atlas Copco Gas and Process integrally-gearred turbocompressors boost productivity for hydrocarbon applications in one compact, reliable package.

HANDLE THE PRESSURE

Integrally-gear Turbochargers

An innovative compression approach that boosts efficiency, gives greater process control and saves space – while offering the dependability that your process requires.

Integral gearing is the most efficient and compact compression design in the industry. Having helped pioneer this technology, Atlas Copco Gas and Process brings the productivity-boosting advantages of integrally-gear turbochargers (IGCs) to numerous processes in oil and gas, industrial gases and power generation markets.

IGCs provide better stage optimization and greater process control than similar single-shaft compressors, while maintaining reliability and availability, and keeping the entire turbocharger on a small footprint.

Efficient IGC design

Integral gear technology is based around a central (integral) gear box in which a main bull gear drives a number of separate pinions. These pinions supply power to compression stages that are paired sequentially into stage groups of two.

Integral gearing makes it possible to apply optimal speeds to each stage group during the aerodynamic design process – something that is not possible on a single-shaft machine. No intermediate gear box is needed for speed adjustment.

IGCs' individually housed compression stages can accommodate several different processes arranged on the same gear box. Interstage cooling, which is difficult and costly with a single-shaft compressor, is easily incorporated after each stage. This increases isothermal efficiency and ensures process gas is delivered exactly to specifications.

Process control through IGVs/DGVs

Our IGCs use variable inlet guide vanes (IGVs) or variable diffuser guide vanes (DGVs) to provide stable compressor operation over a wide range of conditions at a constant discharge

pressure. IGVs regulate inlet flow to ensure accurate process control and give a significant efficiency increase compared to non-IGV compressors.

DGVs provide greater turndown capacity. The mix of efficiency and process control is increasingly important in today's process gas applications.

Ready for your application

Atlas Copco has delivered thousands of IGCs for applications ranging from LNG and gas processing to industrial gases and urea production. Our fully-referenced designs can be delivered in "ready-for-operation" packages, lowering installation time and costs.

Available in models built to API or other major international norms, they bring optimal efficiency, reliability and control to your operation.

Integrally-gear Turbocharger Benefits

- Several different processes arranged on same gear box lowering or eliminating additional equipment
- No intermediate gear box needed for speed adjustment – smaller footprint of compressor
- Speed of each rotor is adjusted individually – significant power savings and lower motor rating
- Can be delivered "ready-for-operation" – lowering installation time and cost
- Proven, fully-referenced concept used in thousands of compressors –reliability, availability and maximum uptime

Talk to your customer representative today to see how Atlas Copco integrally gear turbochargers can deliver performance to your process.

Atlas Copco

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