

The Integrally-gear advantage

At Atlas Copco Gas and Process, we've served the oil and gas industry for over seven decades. With robust and reliable designs, our machines deliver several significant benefits over reciprocating or inline compressor technology:

1. Reduced methane emissions. Atlas Copco centrifugal compressors equipped with dry gas seals can cut methane emissions by up to 80% versus reciprocating compressors
2. Guaranteed 100% oil-free sales gas fed into the pipeline – no oil removal system required
3. Pulsation-free sales gas feed – no pulsation dampers required
4. Lower installation costs and no grouting / special foundation required. Compressors feature a smaller footprint, lighter weight and a single skid / single lift design.
5. Lower operating parts and service costs
6. Lower energy costs versus in-line compression technology
7. 5 year nonstop compressor operation - No production loss

Atlas Copco

Atlas Copco Gas and Process

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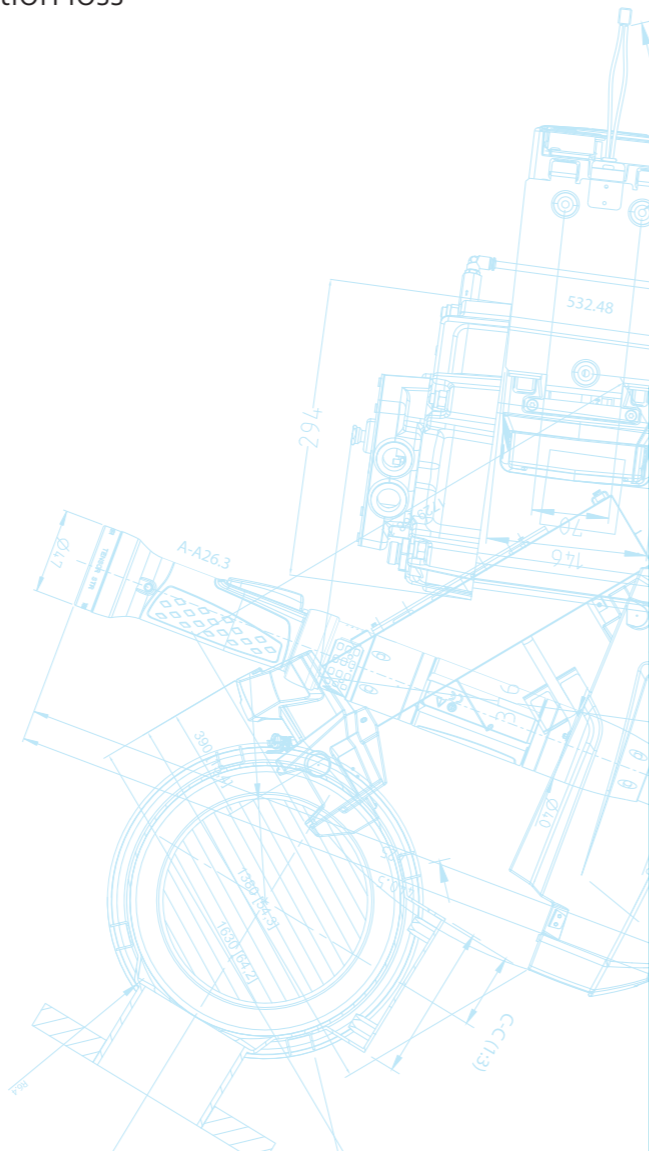
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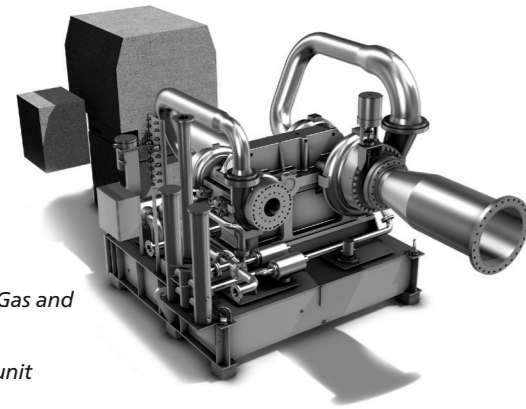
Atlas Copco

Residue gas compressor

Atlas Copco Gas and Process residue gas compressors offer 5 year nonstop performance and lower installation costs that are unmatched in the market.

HANDLE THE PRESSURE





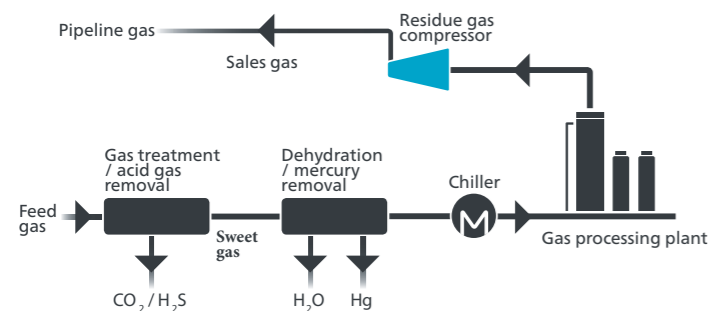
Atlas Copco Gas and Process residue gas compressor unit

Nonstop performance with a smaller footprint

The Atlas Copco Gas and Process residue gas compressor delivers high flow levels and outstanding performance for NGL recovery plants, ensuring efficient pipeline supply.

One Atlas Copco compressor unit can often replace multiple reciprocating compressors. NGL plant operators can save on maintenance costs and enjoy greater flexibility in plant design while benefiting from our hallmark compressor reliability.

A single compressor can fully cover plants up to a rated flow of 400 MMSCFD, delivering years of continuous operation **with high reliability**.



Powerful and Flexible

The compact size and packaging of the compressor supports fast set-up and delivery as well as the flexibility to choose the best off-skid components for their residue compression process.

The Compressor is delivered on a **compact skid including the compressor unit, the lube oil reservoir, lube oil system, seal supporting system and control panel**. The motor is typically mounted on its foundation at site and supplied either by Atlas Copco or by the customer directly. The Atlas Copco Residue Gas Compressor is compatible with all standard main drivers.

The Residue Gas Compressor at a glance:

- **Approx. Flow**
up to 400 MMSCFD / 446,000 Nm³/h
- **Compression Stages**
up to 4 standard and 6 as a custom design
- **Power**
7,000 – 16,000 HP as standard and customized above 16,000 HP
- **Inlet Pressure**
250 – 450 psia, per recovery or rejection mode
- **Outlet Pressure**
up to 1500 psia
- **Molecular Weight**
16 – 19, per recovery or rejection mode
- **Maximum Dimensions**
20' L x 15' W x 14' H (w/o motor)

Integrally geared technology - robust, reliable, efficient

The Atlas Copco Gas and Process Residue Gas Compressor typically features up to 4 stages, dual pinion integral gear, and can be custom designed for 6 stages, 3 pinion integral gear to deliver high flow volumes and efficiency.

The integral gear technology running the core compression unit is one of the most efficient technologies available in the field. By operating 2 or 3 pinions through a common bull gear, it is able to provide optimum speeds with less energy use.

Integral gearing allows for a more compact gearbox and multi-speed capability for optimal design at each stage. The horizontally-split gearbox provides easy access to bearings, gearing and oil seals for simple maintenance.

Variable Inlet & Diffuser Guide Vanes (Item 1)

Variable Inlet Guide Vanes (IGV) are a core competency of Atlas Copco Gas and Process. IGVs control how much flow is sent into the compressor, providing accurate process control. With IGVs compressor efficiency can be increased up to 9% versus other inlet assemblies.

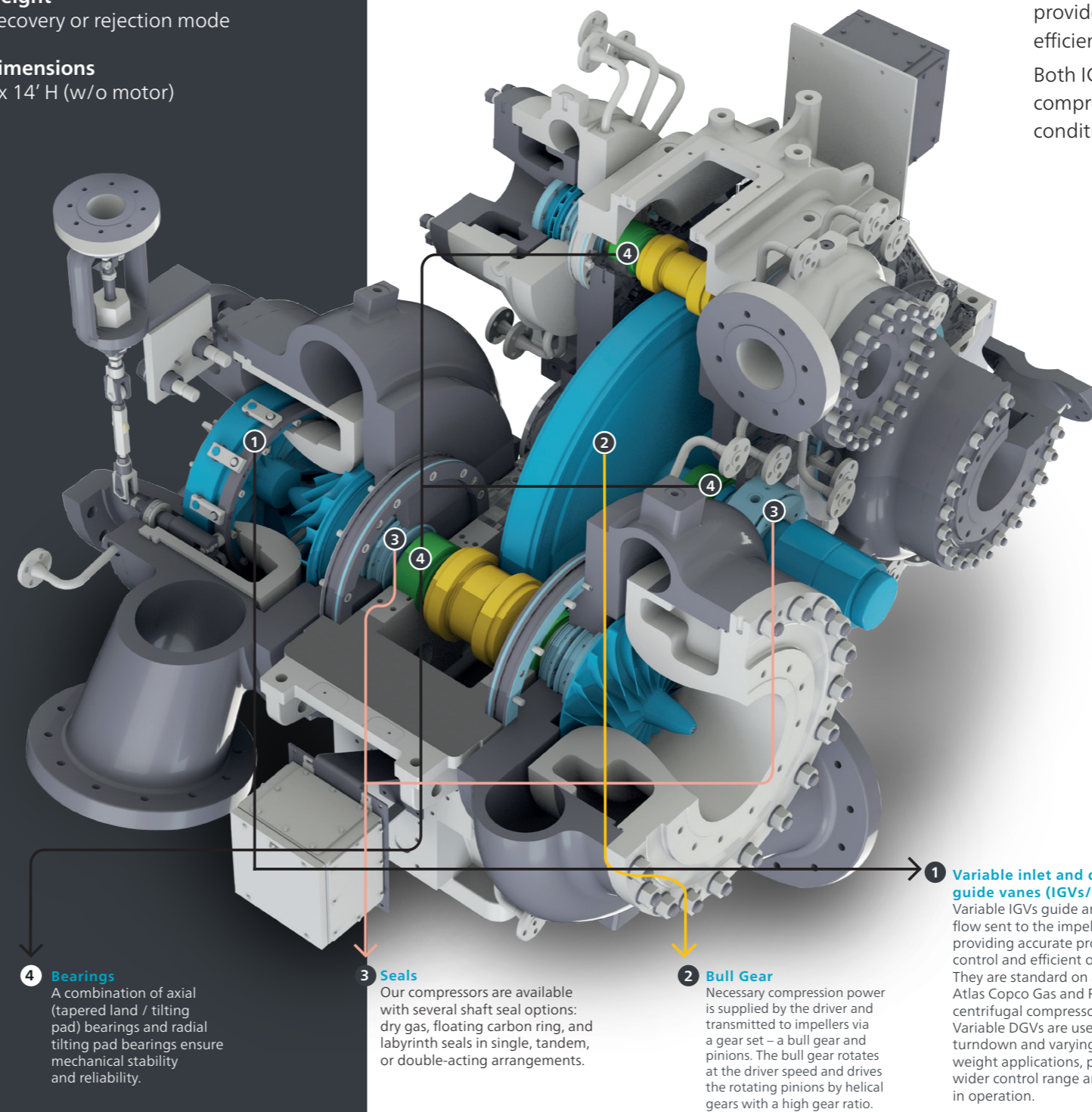
In addition, Atlas Copco Gas and Process is one of the few manufacturers offering Diffuser Guide Vanes (DGV), which enable larger turndown and provide wider process control without impairing efficiency.

Both IGV and DGV technologies provide stable compressor operation over a wide range of conditions at a constant discharge pressure.

Seals and Bearings (Items 3 and 4)

The compressor's high-speed pinion seal system employs **single dry face seals** with carbon ring back-up (tandem seals available as an option).

Hydrodynamic, horizontally split tilted-pad radial bearings and oil seals make inspection and removal easy while delivering a long lifetime of reliable performance.



1 Variable inlet and diffuser guide vanes (IGVs/vDGVs)
Variable IGVs guide and control flow sent to the impellers, providing accurate process control and efficient operation. They are standard on all Atlas Copco Gas and Process centrifugal compressors. Variable DGVs are used for larger turndown and varying mole weight applications, providing wider control range and flexibility in operation.

2 Bull Gear
Necessary compression power is supplied by the driver and transmitted to impellers via a gear set – a bull gear and pinions. The bull gear rotates at the driver speed and drives the rotating pinions by helical gears with a high gear ratio.

3 Seals
Our compressors are available with several shaft seal options: dry gas, floating carbon ring, and labyrinth seals in single, tandem, or double-acting arrangements.

4 Bearings
A combination of axial (tapered land / tilting pad) bearings and radial tilting pad bearings ensure mechanical stability and reliability.