

**MAN Energy Solutions:
Number one in integrally geared CO₂ high-pressure compressors**



MAN Energy Solutions



MAN Energy Solutions has unique compression solutions in its portfolio for the complete range of CO₂, N₂, propylene and vapour related applications, with single machines or complete train solutions. With accumulated **1 500 000 operating hours**, MAN is the world's number one in integrally geared CO₂ high-pressure applications, thanks to its sophisticated testing facilities and proven track records in the field.



The integrally geared compressor is a multi-shaft centrifugal compressor. The number of stages is determined by the process requirements and the relationship between costs and efficiency. Typical

benefits of the various types of integrally geared compressors are high efficiency, low operating costs, a low investment outlay and an excellent operating range. Specific applications include industrial gases, oil & gas, CO₂, urea, purified terephthalic acid or nitric acid processes. Additional applications are fuel gas boosters for large-scale gas turbines.

Features & benefits

- ✓ Individually selectable impeller speed for optimum flow and costs
- ✓ Modular component packages for short delivery periods
- ✓ Modular sealing systems
- ✓ Maximum driver flexibility
- ✓ Intercooling opportunities

Typical performance data

- ✓ Suction flow rates up to 600,000 m³/h
- ✓ Max. discharge pressure 250 bar

For more information non MAN's Turbomachinery products please visit the YouTube channel: <https://www.youtube.com/playlist?list=PLIztVjIntLiY03ZyupLSFOhgCtT77Sai9>

Save energy for grass root and revamp projects

Especially in the field of urea plants, MAN has more than 20 years of experience with this type of compressors based on numerous references for various plants.

With a MAN integrally geared compressor, the MP steam consumption for a 3850 mtpd urea plant is about 12 t/h less than with a single-shaft machine.

Assuming approximately 12 €/t for the steam cost price, this means a yearly saving of more than 1.000.000 €. In some regions they calculate with even higher costs for steam at about 22 €/t.

In revamps the capacities are certainly smaller, but the savings for steam or electricity are still significant.

For more information

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