

Howden's range of Kühnle, Kopp & Kausch[®] compressors for the coke gas industry



Coal is still of major economic significance. Besides its use as a source of energy, it is also carbonised to produce coke, which is primarily used as a reducing agent in metal extraction.

The resulting gases can be used as a highly valuable source of energy. This not only results in economic advantages but also reduces industrial CO₂ emissions.

Principal uses

During the coke-making process a large amount of crude coke oven gas is produced. In the coke oven gas treatment plant the crude gas is processed to form clean fuel gas by means of cooling, filtration and the extraction of valuable products. The extracted by-products crude tar, crude benzene, sulphur and ammonia are refined further and used primarily in the chemical industry.

Core competence

Howden has been manufacturing coke gas exhausters since 1902. As a technology leader, Howden sets the standards for coke gas exhausters in terms of efficiency, reliability and sturdy design. Howden's Kühnle, Kopp & Kausch SL series turbo compressors form an integral part of today's industrial coke gas technology. Numerous reference projects and professional recommendations underscore the extensive market coverage of Howden coke gas exhausters.

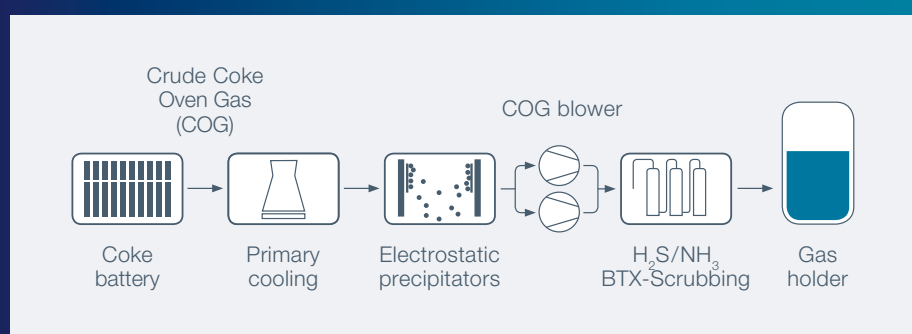
Production methods

Gas purification is based on the coke scrubbing process. The raw gas produced is compressed and transferred to the process.



Howden SL series

Schematic processes flow – coke oven gas treatment



Open or download Vuforia app and scan QR code to open Augmented Reality (AR) model of machine

Customer benefits – SL series

Solutions

The typical operating conditions at coke oven plants, involving toxic and hazardous gases with adhesive content, for example, place high demands on main blower engineering. Howden's efficient concept meets all requirements in full thanks to sturdy design, heavy-duty rotor and special bearing support system. Thus we ensure optimum performance and substantial energy savings.

Compressor size/flow rate correlation (product overview)

Compressor size	Flow rate (m ³ /h)
SL 7.1	35.000–65.000
SL 9	65.000–100.000
SL 11.2	100.000–250.000

The variable opening ratio ensures even finer adjustments in addition to individual machine configurations. The modernised concept combines the proven technology of the existing turbo compressor product range with innovative design.

Your driver of choice

Our turbo compressors can be equipped with electric motors, or – if steam is available – with our very own in-house Kühnle, Kopp&Kausch steam turbines.

In the coking process, where constant, un-interrupted operation is critical, COG exhausters are usually run as a mixture of active and stand-by machines. With Howden, you have the freedom to choose between an individual set up of drivers – combinations of motor-driven, steam turbine-driven or even dual-driven machines are possible.

Lower running expenses

- High efficient blowers with very low power consumption
- Wide control range ensuring economic operation (at partial loads)
- Simple, speedy maintenance thanks to horizontal split.

Handling of gases with sticky content

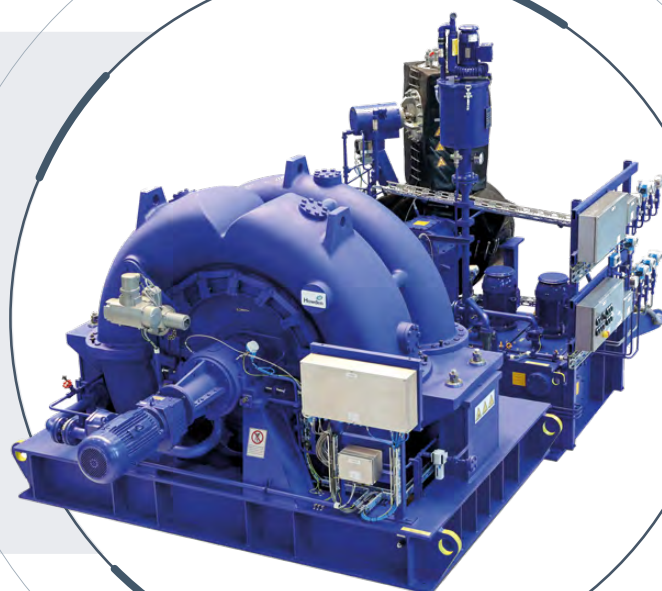
- Impeller between bearings
- Impeller hub and shaft from a single solid forging
- Self cleaning impeller type

Safe operation

- Customised control principles
- Superior surge margin (combined with highest efficiency)
- Optimal blower design meets stringent duty requirements.

Environmental protection

- Energy savings due to high efficiency
- Heat recovery can be used for steam turbine drive (various drive concepts available)



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