ValCOM:
The energy-saving system for use with PET compressors

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ValCOM – the stepless control system designed specifically for use with PET compressors

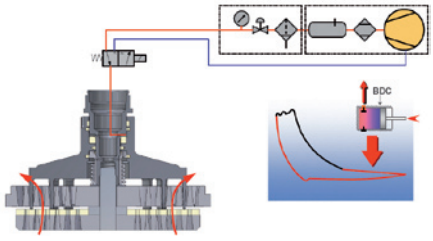
ValCOM automatically supplies the right amount of compressed air for the blowing process.

The challenges presented by the operation of PET compressors

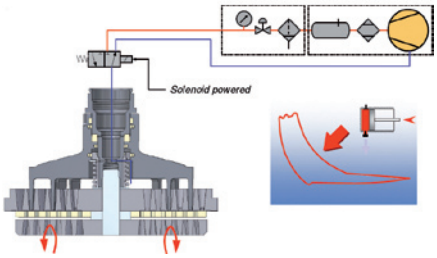
- High energy costs arising from operation of the compressor (e. g. compressed air remaining in bottles not used)
- Production of PET bottles in different sizes and sharp fluctuations in quantities required, due to seasonal factors, for example
- Longer production intervals without compressor downtime due to maintenance operations
- Frequent changes in compressor load due to conventional On / Off operation lead to high temperatures and hence increased load on components

The ValCOM operating principle

During a compression cycle, ValCOM keeps the compressor's suction valve open until the surplus air has been fed back, under pressure, into the suction line. This ensures that the system only compresses the amount of air that is actually required.



The surplus air flows back.

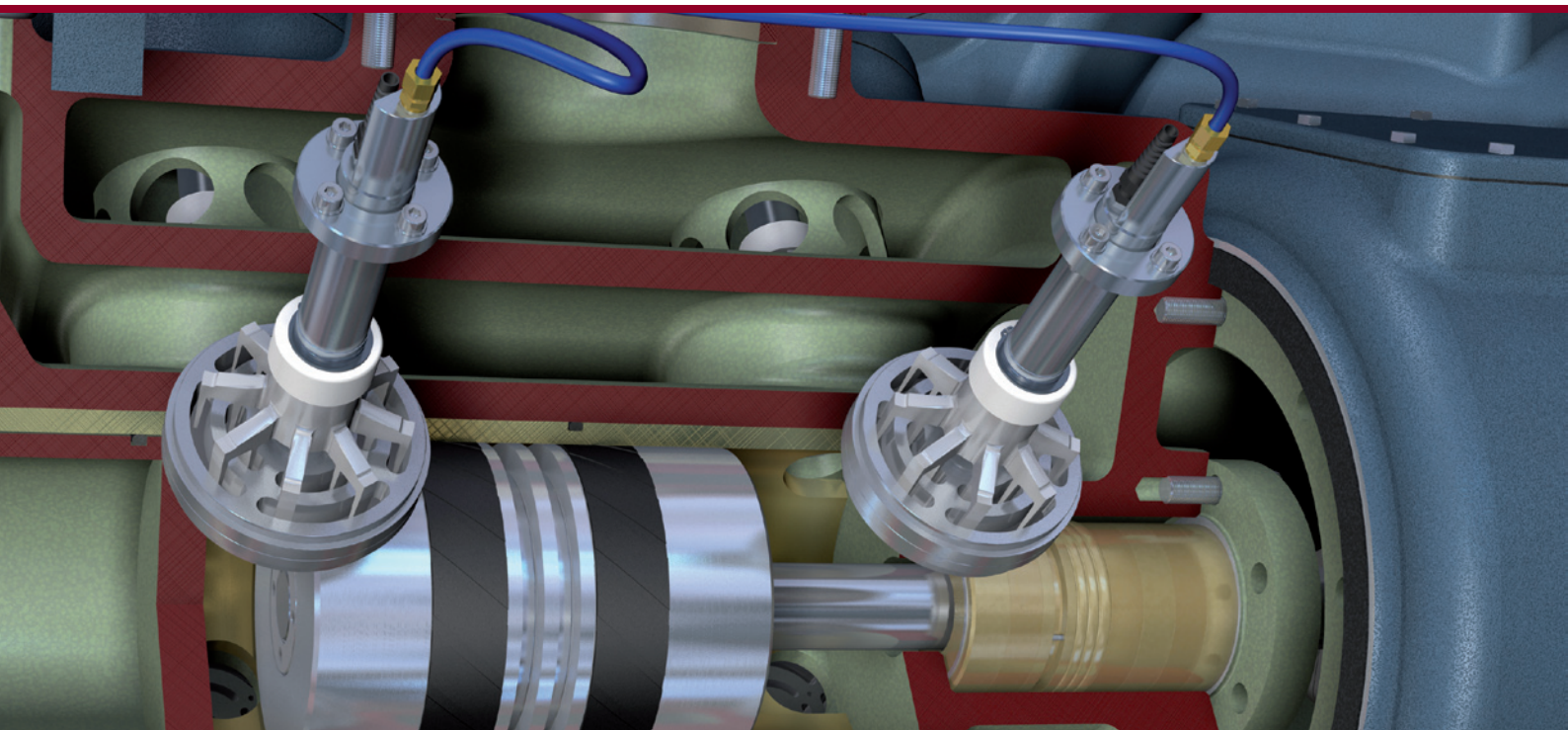


The required amount of air is compressed.

ValCOM considerably reduces the operating costs of PET compressors

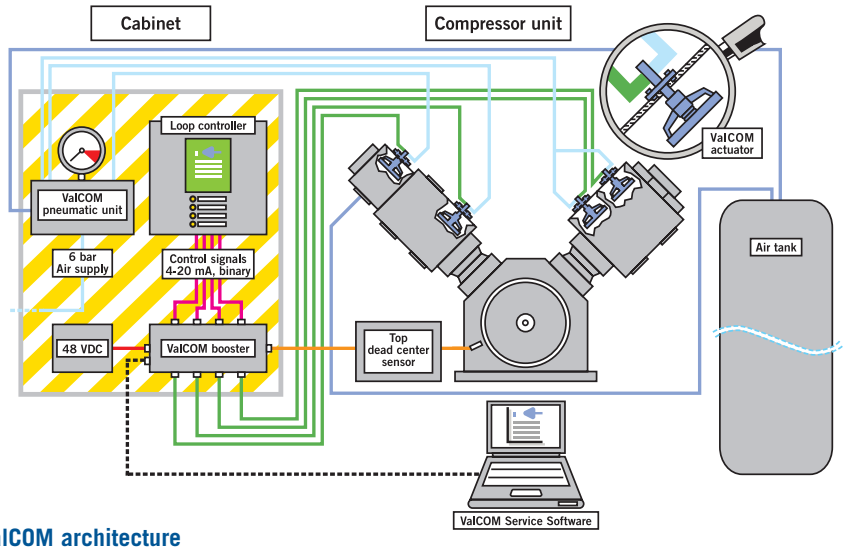
- **Due to energy savings**
  Only ValCOM can ensure use of the surplus compressed air after the blowing process for the feed back into the compressor.
- **By means of quantity control**
  ValCOM quickly, reliably and automatically adapts the PET compressor's air requirement to current circumstances (different bottle-sizes, seasonally-influenced factors, etc.).
- **Due to a longer compressor service life**
  ValCOM avoids the high idling temperatures typically associated with compressor operation. This considerably increases the service life of compressor wear parts.

ValCOM actuators are fitted directly to each suction valve on the compressor.



ValCOM – the efficient energy-saving system for use with PET compressors

Only an automatic "intelligent" control system enables surplus compressed air to be fed back into the compressor.



ValCOM architecture

- **Cabinet**
  The clearly laid out control technology is housed in the ValCOM cabinet.
- **Compressor unit**
  The ValCOM actuator and valve together form a unit. Only the control-system connection points are located outside the compressor.
- **ValCOM Service Software**
  The ValCOM system is easy to configure, via an interface, with a laptop and the ValCOM Service Software. The software is used to display the data required for servicing purposes.

ValCOM allows air recovery via the compressor

The recovery of surplus compressed air for the blowing process is the way forward to reduce costs in PET bottle production.

The most efficient way to save energy is to feed surplus compressed air back into the compressor. The required control of intermediate pressures is handled by the HOERBIGER ValCOM control system.

This allows different quantities of air to be fed back into the compressor. Recovery of the surplus compressed air into the intermediate compressor stages is only possible with ValCOM.

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The advantages of ValCOM at a glance

ValCOM delivers additional energy savings

- ✔ With compressed air recovery, ValCOM achieves savings of up to 30% (compared to situations where there is no air recovery)
- ✔ ValCOM offers maximum energy savings in conjunction with the new CP valve, which has a profiled plate that reduces valve losses by up to 40%

ValCOM permits control of air demand of PET compressors

- ✔ The system can be adapted quickly to fluctuating air volumes
- ✔ The size of the air tank can be reduced
- ✔ Better process control as pressure fluctuations are avoided

ValCOM increases the availability of the compressor

- ✔ Fewer temperature fluctuations mean a longer service life for wear parts
- ✔ No idling operation, as with conventional On / Off control

HOERBIGER monitors the implementation of ValCOM from the initial phase to its successful conclusion

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because performance counts

HOERBIGER Compression Technology is a business unit of HOERBIGER Holding AG, Zug / Switzerland. HOERBIGER is active throughout the world as a leading player in the fields of compression technology, automation technology and drive technology. In 2007, its 6,300 employees achieved sales of around 1 billion Euro. The focal points of its business activities include key components and services for compressors, engines and turbomachines, hydraulic systems and piezo technology for vehicles and machine tools, as well as components and systems for shift and clutch operations in vehicle drive trains of all kinds. Through innovations in attractive technological niche markets, the HOERBIGER Group sets standards and delivers cutting-edge solutions for the benefit of its customers.