

## **HydroCOM** Stepless Capacity Control System

Achieve precise and fast process control while saving energy



# Solve stepless control tasks precise and fast

Many reciprocating compressors need to deliver less than their rated capacity, and this typically requires excess compressed gas to be returned to the suction side via a recycle valve. When this happens, the energy used to compress this recycled gas is wasted.

HOERBIGER's HydroCOM is a system for stepless capacity control for reciprocating compressors.

#### Precise capacity control

HydroCOM continuously adjusts the compressor's delivery rate to match the amount required by the downstream process. Precise control of the suction valves eliminates the need for a bypass valve. This not only saves energy and reduces CO2 emissions, but also improves your process controls at the same time.

#### Working principles

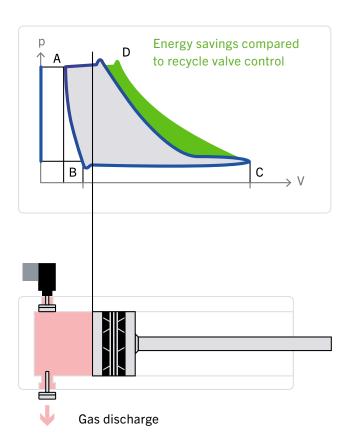
Conventional capacity control systems waste energy because they either require gas to be compressed unnecessarily (bypass valves) or cannot accurately match the required flow rate (stepwise capacity control, which is also time-consuming to adjust).

HydroCOM, in contrast, offers a wide and stepless control range, from below 10% (depending on the application) up to 100%. Delivery rate can be adjusted continuously and automatically, with no time lag. Together with the wide turndown, this means you can operate your compressors more flexibly, cover your needs with a smaller fleet, react quickly and avoid overcapacity issues.



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Embedded temperature monitoring of suction valve covers allows insight into compressor conditions such as leaking valves. Due to its modular design HydroCOM is easy to integrate into both existing and new compressor installations. Process control tasks are implemented in a PLC or a loop controller. In a control cabinet the HydroCOM "Compressor Interface Unit" (CIU) carries out data exchange between DCS/ PLC and HydroCOM actuators.



#### HydroCOM

- Is a proven solution for high force and critical applications
- Has an integrated suction valve temperature monitoring
- Hydraulics can be customized



#### Actuator

Microprocessors inside the actuator for precisetiming of the solenoid valve (similar to common raildiesel injection systems). The solenoid valve controlsthe oil pressure acting on the hydraulic piston in theactuator. Suction valve temp. monitoring on-board.

#### Unloader

The motion of the unloader is controlled by the hydraulic piston in the actuator.

#### Suction Valve

HOERBIGER ring or plate type suction valve with non-metallic sealing elements ensures long lifetime and best efficiency.

### Your benefits at a glance

- Lower investment and maintenance costs for multistage, efficient compressors as well as emissions reduction ("carbon footprint")
- Reduced energy and emissions costs
- Increased reliability, efficiency and minimized risk of unplanned downtimes
- Complete and easy integration into the control system as well as easy upgrade and integration for existing compressors



Learn more by visiting www.hoerbiger.com/hydrocom today!



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