



Title:Hydraulic operated variable clearance pocket (HOVCP)

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Abstract:

Many Reciprocating compressors must be able to operate under a variety of process conditions including variable flow. Several means of flow control have been devised and used in the past.

The simplest and most flexible of all, the by-pass, has the drawback of energy wastage and the associated high costs. Stepped control by means of unloading suction valves has the disadvantage of relatively large capacity steps, as well as energy wastage from valve losses associated with reverse flow in the valves. While the manually adjustable variable clearance pocket does not suffer from these disadvantages, capacity adjustment can only be performed on an inoperative compressor.

Thomassen Compression Systems, wishing to eliminate these disadvantages, and seeking to reduce the Total Cost of Ownership (TCO), has devised an elegant solution for this market requirement in the form of a Hydraulically Operated Variable Clearance Pocket.

The pocket is simple to install on both new and existing compressors. Remotely controlled stepless capacity control, without the described disadvantages, is now possible, and compression power requirements become directly proportional to the flow.

This paper describes:

- Capacity control for reciprocating compressors.
- HCVOP technology.
- Comparison with available systems
- Field experience