



ADVANCING
SUSTAINABILITY
TOGETHER

CPS

Profiled Plate Valve

For your natural gas high speed application


HOERBIGER

The world standard in natural gas high speed compression

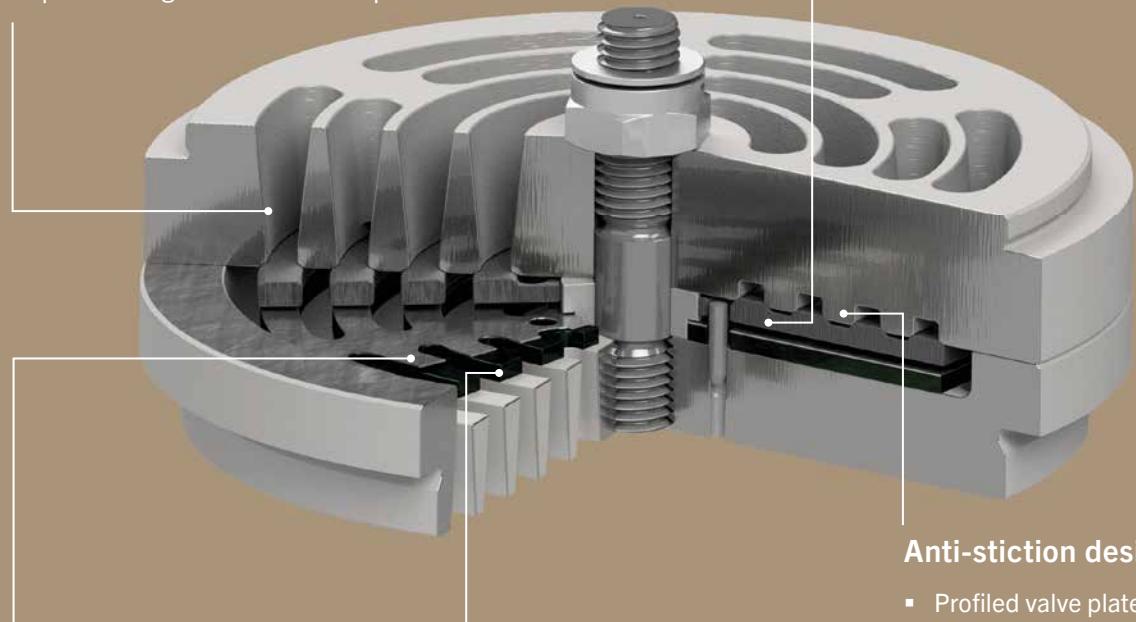
Conventional valve design has had its day when it comes to increasing the efficiency and uptime of compressors. Real increases in compressor efficiency can only be achieved through innovative designs. The compressor valve is the heart of the compressor, and significantly determines the overall compressor efficiency and uptime. To optimize reliability and saving energy, you need a technologically advanced valve that can do both. HOERBIGER's CPs Profiled Plate Valve combines all the properties to meet these requirements: The CPs valves offer up to 50% higher effective flow area than conventional valves and make horsepower available for increased throughput. The high performance PowerPEEK® valve plates outperform any other PEEK valve plates in terms for impact resistance and strength.

But not only that: thanks to the high degree of standardization, the number of different spare parts in the warehouse is reduced and inventory is made easy.

The valves are also the ideal choice for biogas / green methane compression.

Profiled plate/seat

- Streamlined flow path optimizes the effective flow area
- High number of flow channel
- Minimizes power consumption
- Aerodynamic flow path reduces build up of particles and provides higher tolerance of liquids



Spring technology

- Heavy duty spring plate
- Designed for high dynamic loads in high-speed compressors

Damping plate

- Cushions opening impacts of valve and spring plate
- Accommodates tips of spring plate when valve is open

PowerPEEK® valve plate

- Same thermal expansion as steel
- Injection molding leads to optimum fiber orientation and high flexural strength
- Excellent chemical resistance
- 4-6 time higher impact resistance than standard PEEK

Anti-stiction design

- Profiled valve plate, tapered seat and spring plate
- Reduces adhesion forces due to liquids
- Avoids delays in valve opening and closing
- Tolerance against over-lubrication or liquid carry over

PowerPEEK®: High-performance valve plate material means

High efficiency and long life

PowerPEEK® and the unique design of profiled valve plates create a valve with extreme efficiency and excellent flow characteristics. This automatically improves the valve's reliability and durability. The construction of a finer-meshed ring section increases the effective flow area and hence the efficiency of the valve. The aerodynamic design generates a lower pressure drop than conventional valve sealing elements and gives small amounts of liquid and debris the ability to pass through. PowerPEEK® plates also offer an optimized orientation of reinforcing fibers for extreme strength and robustness. This leads to an increase in MTBF and MTBM and higher production output.



Your benefits at a glance

Features	Advantages	Benefits
Profiled plate design and higher number of flow channels	Industry benchmark in efficiency: 30 - 50% higher effective flow area than conventional valves Superior efficiency even at low lift	Long life and high compressor uptime
Damping plate	Cushions opening impacts of valve and spring plates Accommodates tips of spring plate when valve is open	
Injection molded high-performance PEEK®	Optimum fibre orientation and high flexural strength 4-6 time higher impact resistance than standard PEEK	
High effective flow area	Lower power/flow ratio making more horse power available for increased flow	Move more gas
Aerodynamic flow path	Reduces build up of particles and provides tolerance of liquids	Excellent reliability for reduced downtime
Heavy duty spring plate	Designed for high dynamic loads in high-speed compressors	
Anti-stiction design: Profiled plate, tapered seat and spring plate	Reduces adhesion forces due to liquids Avoids delays in valve opening and closing Tolerance against over-lubrication or liquid carry over	Less emissions due to fewer on-site interventions
Industry benchmark in efficiency	Replace wear parts less frequently	Lower maintenance costs
High performance valve plate	Reduce main driver energy costs	Reduced driver power/fuel costs
Heavy duty spring plate		Savings in CO2 emissions.
High standardization Reduced valve configurations	Commonality of parts	Simplified inventory

Need an appointment? Fill in the form or contact your sales representative.

First name *

Last name *

Email *

Company *

Country *

* GDPR Agreement

- I consent to the transfer of this contact form and the storage of my personal information so that HOERBIGER can respond to my request.

See our [privacy policy](#) to learn more about how we use data.

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Send the form or your questions to: c-globalmarketing@hoerbiger.com



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HOERBIGER is active throughout the world in the energy sector, the process industry, the automotive industry, the mechanical engineering sector, in safety engineering, and in the electrical industry. In 2021, its 5,862 employees achieved sales of 1.119 billion euros in 131 locations across 46 countries. Our products and services are used in reciprocating compressors, gas flow control units, vehicle drives, rotating unions, explosion protection, gas-powered engines, and in automobile hydraulics.

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