

# CP

## Profiled Plate Valve

For your natural gas applications

# The world standard in natural gas 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 save energy, you need a technologically advanced valve that can do both. HOERBIGER's CP Profiled Plate Valve combines all the properties needed to meet these requirements: The CP valves offer up to 50% higher effective flow area than conventional valves and make more horsepower available for higher throughput. The high-performance PowerPEEK® valve plates outperform any other PEEK valve plates in terms of 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 management is made easy.

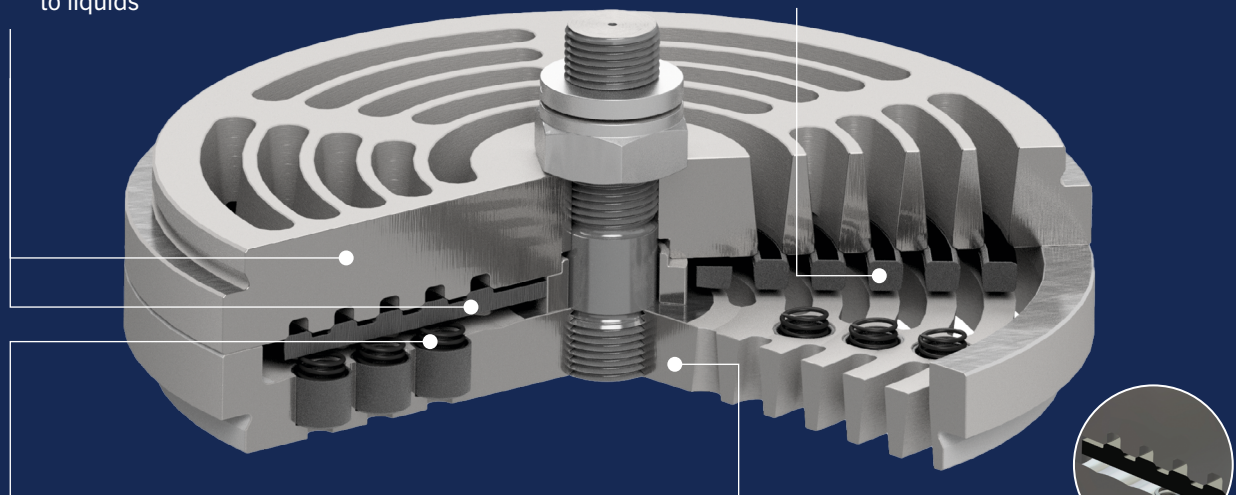
The valves are also the ideal choice for biogas/green methane compression.

## Profiled plate/seal

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

## 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



## Spring technology

- Heavy-duty ESR wire springs
- Design reduces coil-to-coil contact
- Spring savers prevent coil-to-guard contact

## Anti-stiction design

- Wave-shaped profiled guard and tapered seat
- Reduces adhesion forces due to liquids
- Avoids delays in valve opening and closing
- Tolerance against over-lubrication or liquid carryover

# PowerPEEK®: High-performance valve plate material means

## High efficiency and long life

PowerPEEK® and the unique design of our 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.	
Spring savers prevent coil-to-guard contact	Tribological optimization	Long life and high compressor uptime
Injection-molded high-performance PEEK®	Optimum fiber orientation and high flexural strength. 4–6 times 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 to liquids	
Anti-stiction design: Wave-shaped profiled guard and tapered seat	Reduces adhesion forces due to liquids. Avoids delays in valve opening and closing. Tolerance against over-lubrication or liquid carryover.	Excellent reliability for reduced downtime Less emissions due to fewer on-site interventions
Heavy duty springs made of electro-slag remelting (ESR) steel	Designed for high dynamic loads	
Industry benchmark in efficiency	Replace wear parts less frequently	Lower total cost of ownership
High-performance valve plate		Savings in CO <sub>2</sub> emissions and costs
Tribological optimization	Reduce main driver energy costs	
High standardization	Commonality of parts	Simplified inventory
Reduced valve configurations		



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today!



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more information!

Locally close to the customers – globally successful: HOERBIGER is active worldwide in 43 countries on all continents. 5,948 employees at 127 locations – including 25 production plants – deliver reliable solutions for better performance, increased safety, and fewer emissions. In 2022, they generated sales of 1.267 billion euros. For renowned customers from the energy sector, the process industry, the automotive industry, the mechanical engineering industry, safety technology, and the electronics industry, performance-determining products and services from HOERBIGER make the difference. With innovations for decarbonization and energy transition, HOERBIGER is already enabling change today for a better tomorrow. As majority shareholder, the HOERBIGER Foundation preserves the 128-year-old entrepreneurial heritage and guarantees stability, independence, and a future-oriented strategy.

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