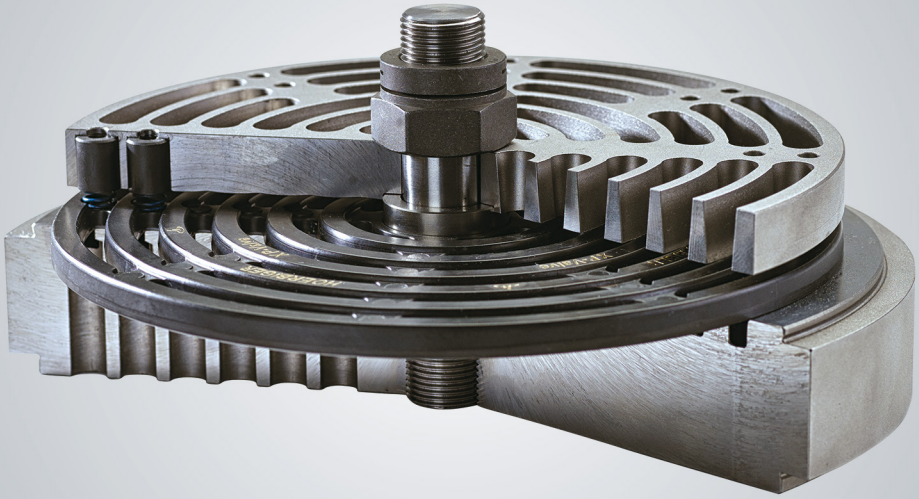


XP

Profiled Plate Valve

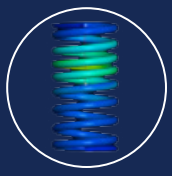
For your process gas applications

HOERBIGER

The best valves in efficiency without sacrificing reliability and uptime

Conventional valve designs have outlived their purpose 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 XP Profiled Plate Valve combines all the properties to meet these requirements: The XP valves offer up to 50% higher effective flow area than conventional valves. The high performance PowerPEEK® valve plates outperform any other PEEK valve plates in terms for impact resistance and strength.

Further, you can drastically decrease the electric power and fuel consumption and reduce the related CO2 emissions when increasing the service life and valve efficiency up to 50% in parallel. But not only that. The valves are also designed for applications in the field of green hydrogen production and hydrogen transport.

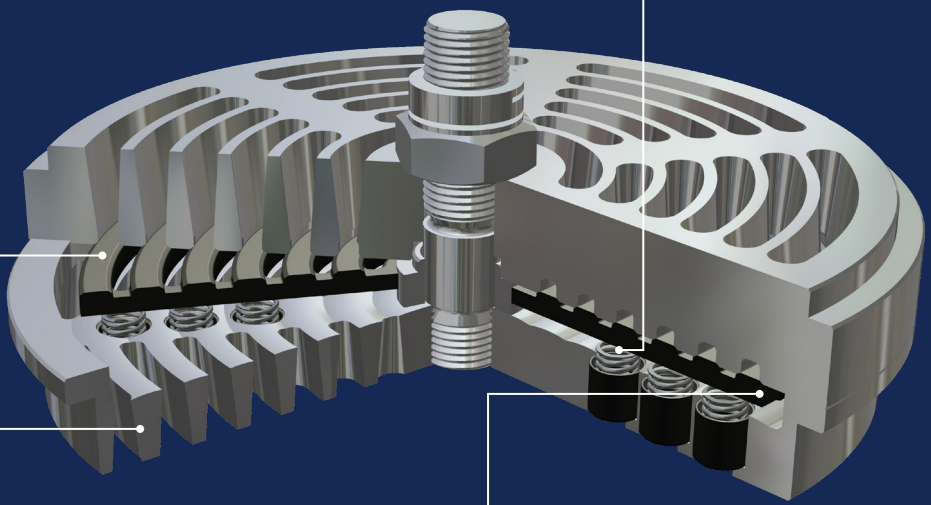


Profiled plate/seat

- 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

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® valve plate

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

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	Long life and high compressor uptime, reduced electric power/fuel consumption and related CO_2 emissions
Spring savers prevent coil-to-guard contact	Tribological optimization	
Injection-molded high-performance PEEK®	Optimum fiber orientation and high flexural strength. 4–6 times higher impact resistance than standard PEEK	
Aerodynamic flow path	Reduces build up of particles and provides tolerance of liquids	Excellent reliability for reduced downtimes, reduced maintenance costs and less emissions due to fewer on-site interventions
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.	
Heavy duty springs made of electro-slag remelting (ESR) steel	Designed for high dynamic loads	
Outstanding effective flow area	Replace wear parts less frequently (longer service intervals)	Lower total cost of ownership Savings in CO2 emissions and costs
High-performance valve plate	Reduce main motor energy costs	
Tribological optimization	New built: reduce size, number of valves and compressor footprint	

Scan for technical data
and more information!

Contact us via email
c-globalmarketing.com@hoerbiger.com

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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