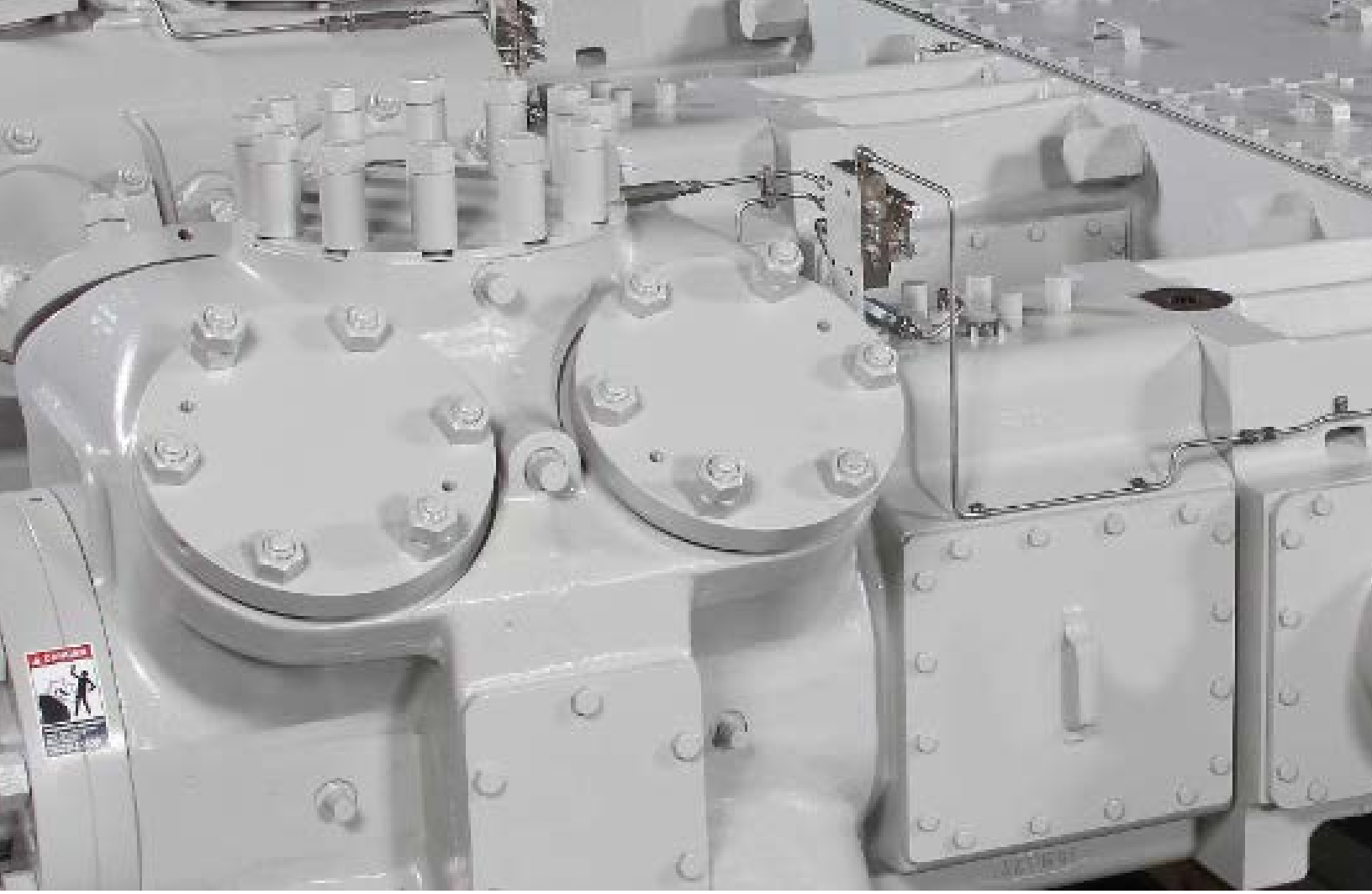

Dresser-Rand Magnum Valve

New benchmark for reliability and efficiency.

Siemens has more than 100 years of valve design and manufacturing leadership have culminated in an innovative design that sets new benchmarks for reliability, long life, efficiency, affordability, and short cycle times from quote to shipment—the Magnum® valve. Suitable for all brands of reciprocating compressors, the Magnum valve can be configured for a wide range of operating conditions and virtually any gas process.

Proven to Run Longer Between Overhauls

Valve performance and reliability are key to compressor performance. By paying careful attention to reliability in every aspect of the design, we've created a valve that can run more than 50% longer than other valves before needing service. We proved it in thousands of hours of tests, many at high speeds and high temperatures, with a wide range of gases.

A high-strength thermo-plastic, PolyEtherEtherKetone (PEEK), is used to create low-mass sealing elements that withstand the high impact velocities that occur during operation. It also handles high temperatures, is compatible with most gas applications, and resists dirt, corrosion and liquid swelling. The PEEK sealing element provides reliable performance in demanding conditions while the streamlined flow path optimizes the effective flow area.

siemens-energy.com/reciprocating-compressors

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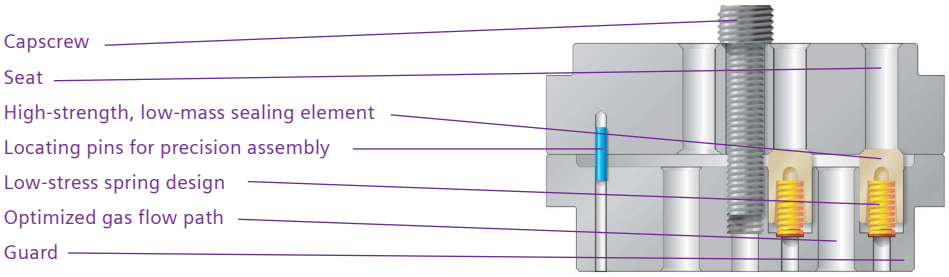

Cross Section of Magnum Valve

Optimize Efficiency

While designing for reliability we didn't neglect efficiency. The Magnum valve uses a revolutionary new grid pattern—so the seat, guard and lift areas are well balanced.

The effective flow areas (EFA) are similar to those of other valve types, so the Magnum valve won't compromise performance. And because each element operates independently, the design automatically compensates for non-uniform gas flow. This helps reduce wear, while maximizing flow and minimizing pressure losses.

Features	Benefits
High-strength valve element	Operates at high compressor speeds and pressure differentials
Applied to all brands of reciprocating compressors	Commonality of internal components and reconditioning practices
Proven advanced valve element geometry	Reduces fatigue stresses for extended life while minimizing power losses
Common element for all valves	Reduces parts inventory Increases interchangeability/availability of replacement parts Minimizes replacement costs
Nonmetallic valve element	Covers full spectrum of gas applications Absorbs high impact velocities Can be used for lube or nonlube
Precision-guided element and springs	Increases reliability of moving parts for long-term operation
Streamlined flow path with optimized seat, guard and lift areas	Optimizes effective flow area (EFA) and is more tolerant of particles and liquids in the gas
Custom valve selection using proprietary dynamic valve analysis (DVA) software	Optimizes valve performance and reliability

Less Expensive to Own

Because the Magnum valve uses just a few small, standardized components, you'll have lower inventory costs. Parts are also readily available from the Dresser-Rand business.

In many cases, the exceptionally low cost of replacing Magnum valve parts will make it more cost effective to outfit an entire compressor with Magnum valves, rather than continually replacing the expensive parts used by other valve types.

Customized To Your Application

We use proprietary dynamic valve analysis (DVA) software to custom design every Magnum valve to ensure optimal performance and efficiency.

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