

SPM[®] EdgeX[™] Valve and Carbide Seat

High-performance valves and seats for any standard fluid end

SPM[™] Oil & Gas

A Caterpillar Company



Six times longer seat life, two times longer valve life

With patented tungsten carbide insert technology, SPM Oil & Gas' innovative SPM[®] EdgeX[™] Carbide Seat consistently outlasts conventional steel seats by an average of six times, eliminating on-site maintenance and the associated downtime and risk. The SPM[®] EdgeX[™] Valve optimizes fluid and valve dynamics—for improved reliability and double the operating life.

The benefits of carbide without the risk

Seats made entirely of tungsten carbide deliver long operating life, but they are brittle and vulnerable to shattering. This could cause irreparable damage to the fluid end, or worse, additional product downtime leading to NPT. To address this issue, the SPM[®] EdgeX[™] Carbide Seat features strategically placed tungsten carbide in the key wear area—combining the strength and wear-resistance of tungsten carbide with the proven durability and resilience of steel.

Less maintenance, more pumping

Standard valve seats have an average maintenance interval of just 80 hours. The high-performance SPM[®] EdgeX[™] Valves and Carbide Seats are built to withstand wear, abrasion, and high pressure for extended periods of time—dramatically reducing maintenance, operations, HSE risk, and nonproductive time. In field testing, the SPM[®] EdgeX[™] Carbide Seats have lasted between 515 and 760 hours in some of the industry's harshest conditions, saving hours of maintenance time per bore.

Enhanced valve durability and performance

An optimized steel-urethane ratio at the strike face, enabling SPM[®] Valves to last twice as long as conventional designs. Proprietary urethane provides high sand abrasion resistance in the industry.

Features

- Patented tungsten carbide insert technology
- Industry-standard taper fluid end compatibility
- Industry standard 30° strike angle
- Valve body designed to reduce fluid turbulence and erosion to increase valve life and performance
- Proprietary urethane for maximum resistance to sand abrasion
- Robust design allows for field serviceability; can be installed and replaced in the field using standard tooling

Benefits

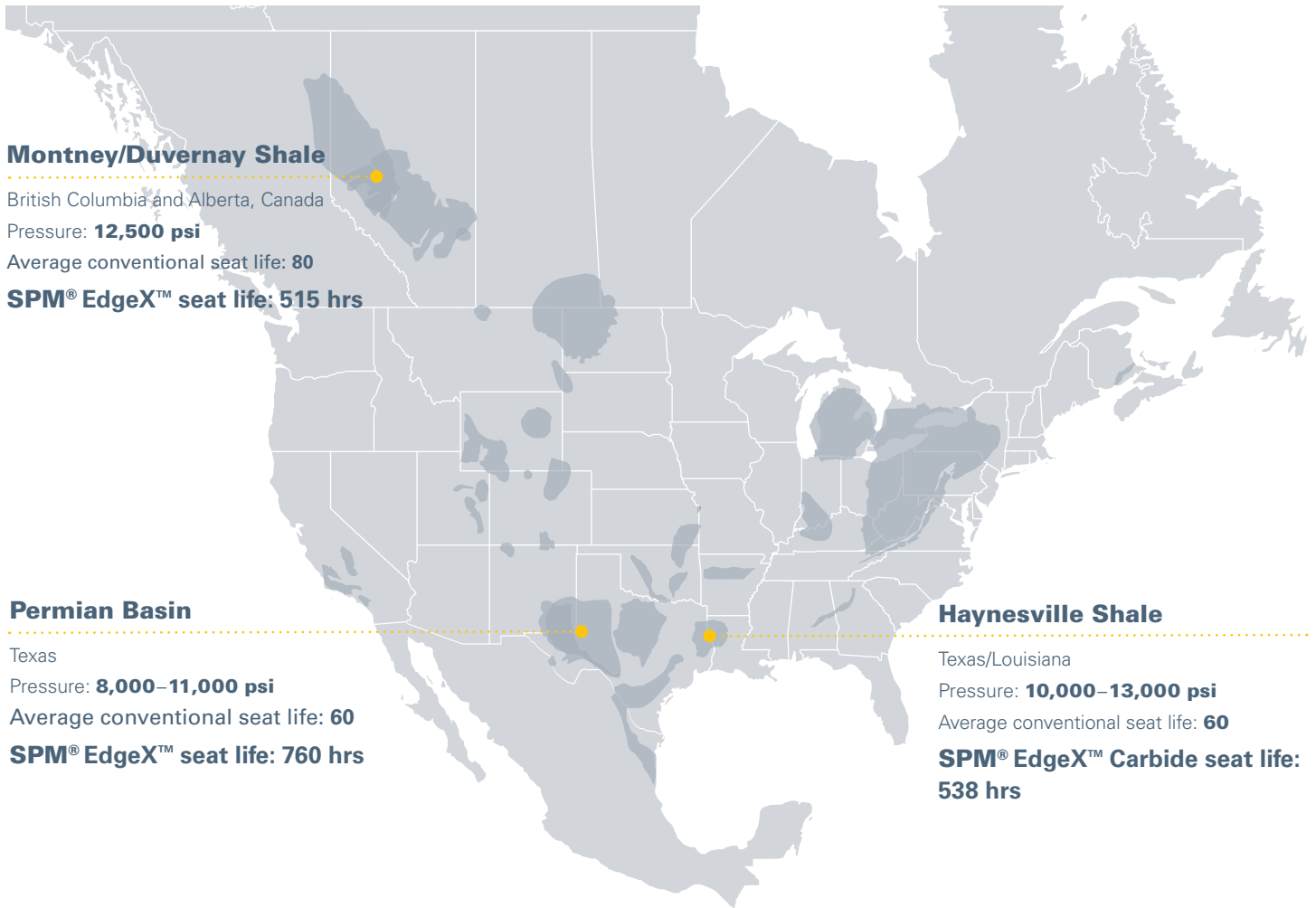
- Doubles valve life
- Seat life increased by an average of 6X, delivering up to 760 hours of run time reducing the need for on-site seat changeout
- Enables longer maintenance intervals
- Improves TCO compared with conventional valve seats
- Reduces HSE risk and nonproductive time

Applications

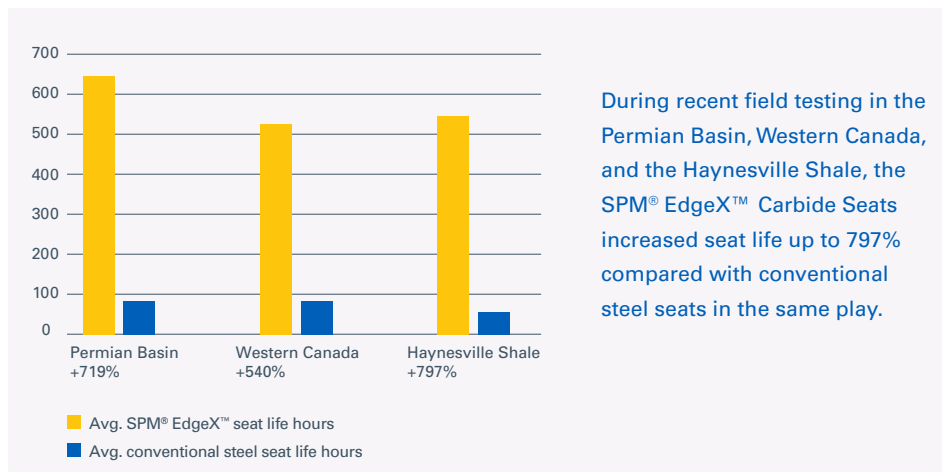
- Hydraulic fracturing
- Designed for primary use in Hydraulic Fracturing applications

Maximum equipment compatibility and interchangeability

Employing the industry-standard 30° strike angle, the SPM® EdgeX™ Valve and Carbide Seat is compatible with any fluid end and valve assembly—giving you complete freedom and flexibility to mix and match parts as operations require.



During recent field testing in South and West Texas, the **SPM® EdgeX™ Valve and Carbide Seat** achieved an operating life of **680 hours** with pumping pressures up to **12,500 psi** using 100-mesh sand.



SPM Oil & Gas
 601 Weir Way
 Fort Worth, TX 76108
 USA
 T +1 800 342 7458
 F +1 817 977 2508
www.spmoilandgas.com