Freudenberg Sealing Technologies valve stem seals control leak rate for the life of the engine to assure correct guide lubrication while avoiding excessive oil consumption.

Prevent any flow of blow-by gas from the manifold to the engine head with: special metal case for improved seal retention, special lip geometry to further increase Lip Opening Pressure (LOP).

Freudenberg Sealing Technologies valve stem seals are produced from high-performance materials which lead to increased lifetime and lower wear. They are supplied in a variety of geometries to satisfy different assembly needs. Different valve stem seal types are also available to match customers’ application requirements.

**VA03**

VA03 with an integrated flange at the bottom that replaces the spring washer normally fit separately

**VALUES TO THE CUSTOMER**

Freudenberg Sealing Technologies valve stem seals offer premium service capabilities:

**Engine performance benefits**
- Improve engine (mechanical) performance
- Constant performance over life of the engine
- Reduced valve train wear rate
- Increased engine efficiency

**Product development** for customers’ specific requirements and needs

**State-of-the-art manufacturing process** with “global footprint” technology

**Continuous technical support and expertise** throughout the project lifetime, established by a strong, cooperative partnership with our customer
VALVE STEM SEALS

FEATURES AND BENEFITS

**OIL METERING**

“CONTROLLED LEAKAGE” CONCEPT

Avoid inadequate oil flow and its effects
- Increased valve train wear rate
- Premature valve train failure
- Increased valve train noise
- Higher local temperature

Avoid excessive oil flow and its effects
- High oil consumption
- Lower engine efficiency
- Poor catalyst performance

**BLOW-BY CONTROL**

PREVENT EXHAUST GASES PASSING THROUGH THE SEAL

Avoid inadequate control and its effects
- Insufficient lubrication causes:
  - Increased valve train wear rate
  - Premature valve train failure
  - Increased valve train noise
  - Higher local temperature
- Engine oil contamination
- Power loss
- VSS damage

The information contained herein is believed to be reliable, but no representation, guarantees or warranties of any kind are made to its accuracy or suitability for any purpose. The information presented herein is based on laboratory testing and does not necessarily indicate end product performance. Full scale testing and end product performance are the responsibility of the user.

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