



Product Information

V-SEAL & GAMMA SEAL



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WSI V-SEAL & GAMMA SEAL

WSI V-SEAL can protect the ingress of dirt, dust, and water in the comprehensive applications. The V-Seal is made entirely of rubber and comprises a body and a conical lip joined to the body. It is mounted on and rotates with the shaft. The lip of the seals fixes against a stationary counter-face, e.g., bearing, washer, stamping or even the oil seal.

WSI Gamma Seal has similar function to V-Seal. However, the metal case could protect the sealing lip harmed by solids that might affect the sealing function. The metal case fits onto the shaft, and it can not only protect the inner Sealing units, but also act as an outstanding deflector for dirt, sand, grime, etc.



Product Description

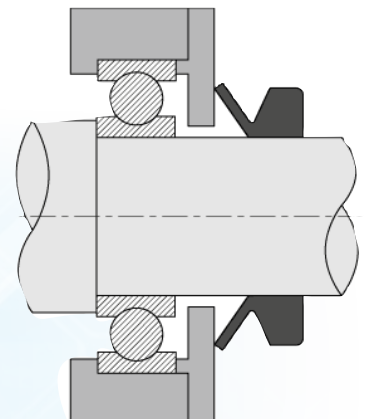
WSI V-Seal & Gamma Seal offer a number of economical advantages

The demand of V-Seal on the tolerances and surface finish of the sealing surface are low. A counter-face finished by fine turning and polishing will produce efficient sealing in most cases. The shaft roughness is fairly moderate, and do not exceed 4 μm Ra in general. The V-Seal & Gamma Seal does not wear the shaft which is expensive component in the machine. When changing a seal, expensive and time-consuming disassembly can often be avoided. Besides, there is a centrifugal force, the friction of the seal against the axial face decreases with the increases of shaft speed. Complicated designs can be avoided because of by using the V-Seal the designer can adapt the seal to the design.



Characteristics of V-Seal & Gamma Seal

- There is no relative movement between the body of V-Seal and rotating shaft, so it can avoid shaft wear and the demand of wear ring.
- Widely used in many applications.
- Easy and simple installation.
- Does not need special machine to close tolerances.
- Low friction loss and minimum heat generation result in long service life.
- Allows axial movement and radial misalignment.
- Functions simultaneously as sealing and dirt exclusion.
- Operates reliably in certain applications of dry running.
- Being able to operate at high-speed application.
- Low demands for surface roughness, hardness and tolerance.



Technical Information

V-Seals & Gamma Seals are available in many types to meet various applications for customers' requirements. WSI offers six standard and common types of V-Seal & Gamma Seal for selection.

The description of these six types were illustrated as below:



VA Type

- The most commonly used
- Has a perpendicular rear face
- Ideal for conveyor appliances



VS Type

- Has better fitting on the shaft due to larger fitted width
- Wide body ensures higher radial fitting force
- Design secures seal axially and radially at high speeds
- Commonly used in automotive and agriculture applications



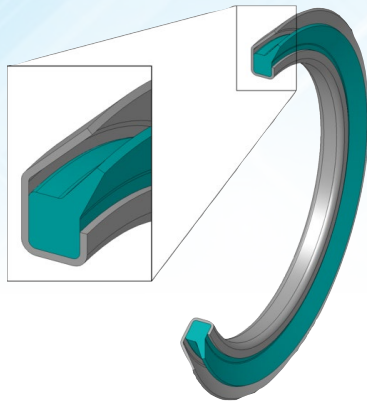
VL Type

- Narrow axial cross-section
- Applications for limited space installed
- Very effective supplementary labyrinths



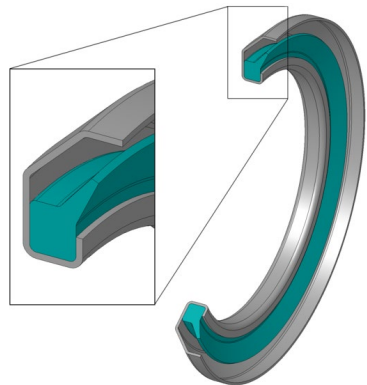
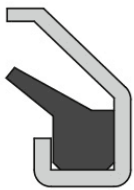
VE Type

- Large diameter seal for heavy duty appliances
- Commonly used in rolling mills as a dirt / water excluder



RB Type

- Against dust and dirt ingress
- Dust lip with metal housing can against dirt and solid particle



RE1 Type

- Against dust and dirt ingress
- Dust lip with metal housing can against dirt and solid particle

Application Material Selection

Commonly, V-Seals are manufactured in two different grades of rubber. Nitrile rubber (NBR) is the standard grade. It has excellent resistance to wear and withstands the majority of media to which a seal is exposed.

Fluoroelastomer (FKM) is used where the operating temperatures are high, and in conjunction with certain aggressive media.

The resistance of temperature range may change due to different applications. If you have any queries regarding material selection, please feel free to contact us for more information.

Application

V-Seals and Gamma Seals are used to retain greases and prevent the ingress of dirt, oil, water splash or other contaminations. Those two seals are used in a wide range of applications such as water treatment plants, rolling mills, machine tools, household electrical appliances and household electrical motors (i.e. small size of V-Seal), etc. There are some special applications such as L type of V-Seals are used in labyrinths as static seals on the stationary parts.