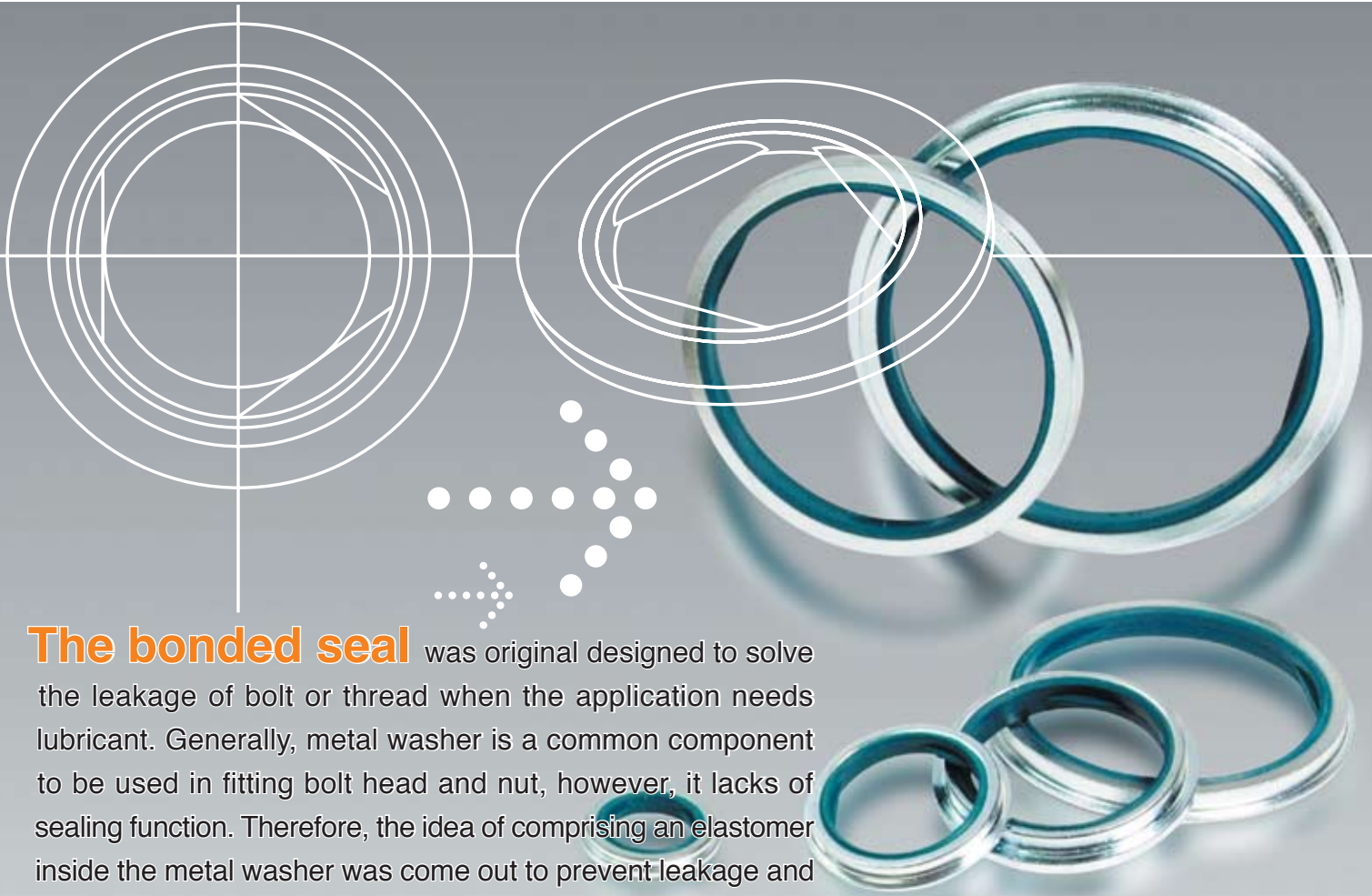
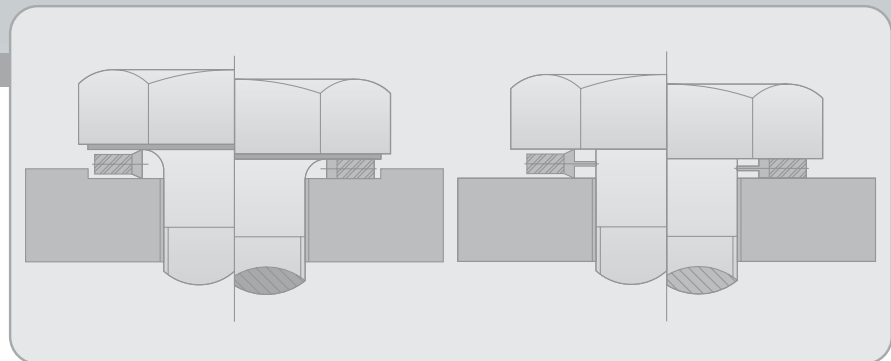


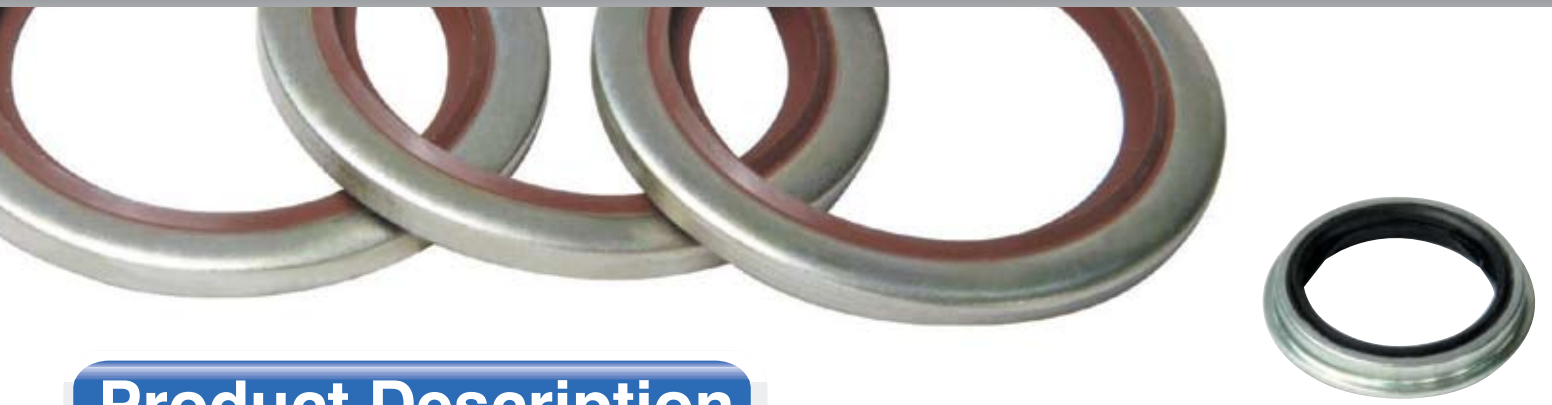
Product Information

NAK BONDED SEAL



The bonded seal was originally designed to solve the leakage of bolt or thread when the application needs lubricant. Generally, metal washer is a common component to be used in fitting bolt head and nut, however, it lacks of sealing function. Therefore, the idea of comprising an elastomer inside the metal washer was come out to prevent leakage and meet the lubricant application.





Product Description

NAK BONDED SEAL was originally designed to withstand high pressures, and it is being substituted for copper type washers in higher pressure system. The NAK Bonded Seal comprises a metal washer and an elastomeric ring bonded inside the diameter. The metal washer prevents over-compression and limits deformation of the elastomeric ring; the elastomer prevents lubricant leakage internally and avoids water or the pollutant invasion from outside environment.

Advantages of NAK Bonded Seal

- Provides efficient cost to solve the sealing of bolt/thread
- Can be used in various applications, i.e.: threaded bolt, studs and clearance holes
- Available in different temperature ranges
- Reliable to suit for high and low-pressure sealing
- Metal washer prevents the elastomer from over compression and deformation
- Available to suit for all thread sizes
- Easy to assemble
- Available to self-centralizing
- Ability to pre-assemble

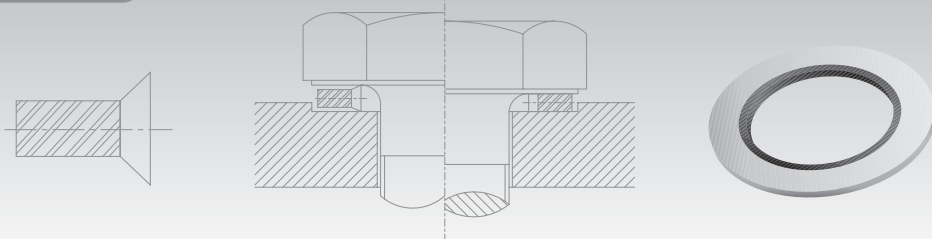


Technical Information

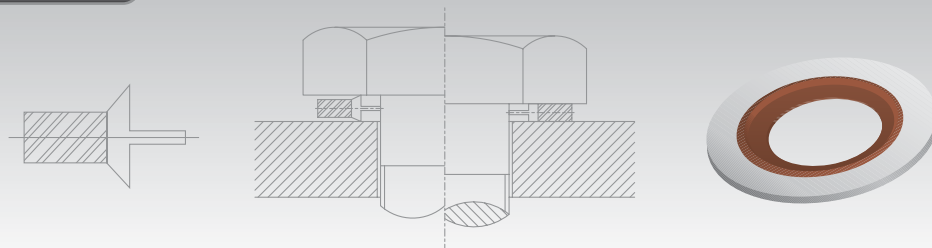
The **bonded seal** is an elastomeric sealing ring that vulcanized on the edge of a metal washer. The metal washer could control the optimum deformation of the elastomeric sealing ring and eliminate the possibility of over-compression and extrusion.

NAK has standard and self-centering types of bonded seal, and other customized designs are also available. The standard types are commonly used to seal blot or thread clearance in most engineering applications. A wide range of different sizes is available. The self-centering type has the characteristics of easy and accurate placement.

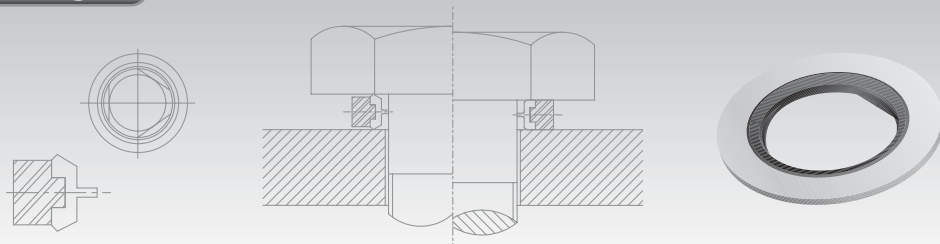
WS



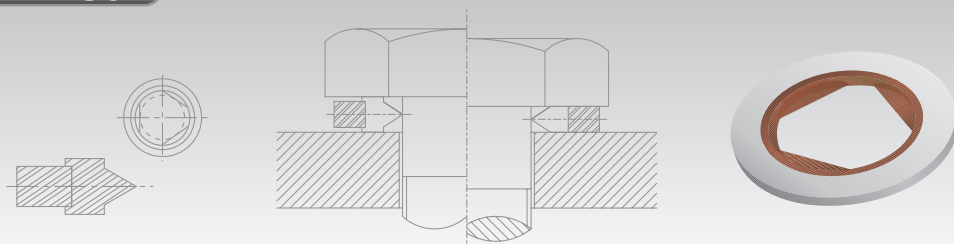
WS1



KDS1



KDS3



Materials

Specification

- BRITISH IMPERIAL
- GERMAN METRIC
- FRENCH METRIC
- BSP
- CUSTOMERIZED DESIGN

Special Materials

- SILICONE
- NEOPRENE
- FLUROSILICONE

Normal Materials

- NBR
- HNBR
- FKM
- EPDM

Metal Materials

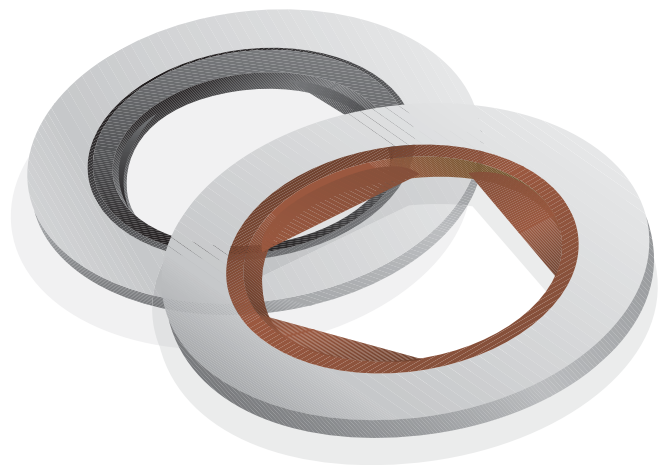
- SAE 1008
- SAE 30304
- SAE 30316
- SAE 4140
- Metal with Zinc Plating
- Aluminum

Applications

Bonded seals are used on bolt / thread sealing, e.g. pipe connections in hydraulic system, parts connection by bolt in automotive system. Bonded seals are widely used in many applications in various industries where needs the static bolt / thread sealing.

Disclaimer

1. NAK product is prohibited to use, install or apply in or on any aerospace related instrument and equipment.
2. NAK has no liability under any express or implied Warranty if NAK Product:
 - is modified or tampered;
 - is misused, abused or misapplied;
 - is used in a critical environment or specific equipment without NAK prior written acknowledgement;
 - is not used in accordance with the printed user instruction materials
 - is damaged owing to natural deterioration, decomposition or transformation of chemical structure
3. If NAK's product to be applied in critical environment or specific equipment, it is only allowed to launch into mass production when the sample has been passed the testing conducted by the user.



NAK Sealing Technologies Corporation

Address: No. 336, Industrial Rd., Nankang Industrial Zone, Nantou, Taiwan
Tel: +886-(0)49-2255011 Fax: +886-(0)49-2250035 Web: www.nak.com.tw

ISO9001/TS16949 Company