

# Bonded Seals

Bonded Seals are commonly known as Dowty Seals or Dowty Bonded Washers. They are high pressure seals used in the Mechanical, Hydraulic and Pneumatic sectors.

Bonded Seals have generally replaced copper washers in high pressure applications.

A trapezoidal shaped rubber sealing element is bonded to the inner of a metal washer to produce the finished part. Used in circumstances where high pressures demand greater sealing capacity than can be obtained with Copper washers. The metal ring prevents over compression and extrusion of the pliable ring.

#### CHARACTERISTICS OF BONDED SEALS

- Ideal Pressure Gasket
- Reliable sealing at high & low pressure
- High & low temperature capability
- Reduced bolt torque with no loss of tightening loads
- Metal ring prevents rubber compression

The most common washer types are Mild Steel or Stainless steel, however, other metals can be supplied.

The most common rubber types used are Nitrile (NBR) and FKM (Viton®).

Different combinations of metal washer to rubber sealing elements can be produced.

Bonded Seals are available in a choice of materials including:

- Mild Steel
- Stainless Steel
- Brass
- Aluminium
- Nitrile
- Viton
- EPDM
- Silicone

#### WHY USE BONDED SEALS?

Bonded Seals were originally designed to replace copper type washers in high pressure systems. Bonded Seals comprise of a metal washer and an elastomeric ring bonded inside the diameter. The metal washer prevents over-compression and limits deformation of the elastomeric ring.

We can supply Bonded Seals in both standard and Self Centering styles to in the following ranges:

- Inch
- BSP
- German Metric
- French Metric

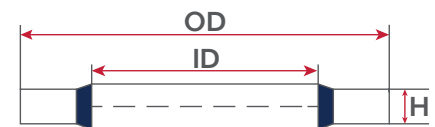


Fig 1.1 Standard bonded seal type



Fig 1.2 Self-entering bonded seal type

“ We are dedicated suppliers of **high quality products**. **Certificate of Conformity** comes as **standard**, and we offer special labelling and bagging services. ”