## **Manlid Seals**

## Data

# FORT VALE



#### Rubber Compounds

Fort Vale offer an extensive selection of manlid seals to suit all applications and a range of temperatures.

Standard seal section dimensions are approximately 16mm x 10mm. Alternative dimensions are available as well as special seals to suit specific manways.

Seals may be fitted into the manlid cover if requested at the time of order. It is the responsibility of the client to verify that the seal material is compatible with the cargo.

A comprehensive range of genuine Fort Vale spare seals is available from all Fort Vale group companies as well as from our worldwide network of authorised distributors and service centres.

Seals moulded from rubber compounds are suitable for many duties. Advantages include :

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- Easily cleaned
- Good resilience qualities
- Excellent sealing capabilities
- Economical to replace regularly

Please be aware that many of these compounds are suitable only for specific types of cargo. The temperature range of each type of rubber must be observed. Please refer to the table overleaf for a general guide to product suitability. For more specific advice, please contact our Sales team.

#### **Composite Seals**

Composite seals have been developed for general purpose tanks where the products carried can vary and therefore, where a multi-purpose seal is required.

**Braided** - (**NON-GAS TIGHT**) PTFE impregnated fibre tightly braided around a silicone core and jointed into a solid ring. Caution should be taken when fitting rigid seals. Fitting this seal is at the discretion of the tank builder. See note on reverse for duty.

# \*NB (see over page) This material is lubricant free but does contain a small percentage of residual wetting agents essential to the PTFE dispersion with which this packing is impregnated. It should be noted that small amounts of these wetting agents may leach during application.

"Super Tanktyt" - a virgin PTFE sheath bonded to three sides of a nitrile rubber core offering excellent sealing capabilities and cleanliness together with suitability for a wide variety of cargoes. It remains gas tight at 4 Bar.

Advantages include:

- Easily cleaned
- Excellent resilience qualities
- Excellent sealing capabilities
- Does not become porous
- Suitable for a wide variety of cargoes and a broad temperature range

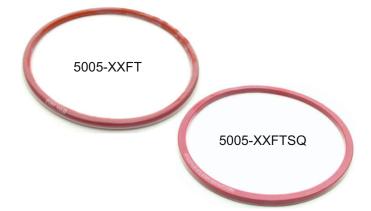
Overall, the Super Tanktyt is the ideal sealing solution for the chemical industry. Its rubber core gives flexibility to ensure a gastight seal and its PTFE envelope gives optimum protection in hazardous cargo applications. (Super Tanktyt is a Fort Vale trade name.)

#### Seal Gas-Tightness - Important Note:

Following fabrication of the neckring to the tank shell, Fort Vale recommends a maximum tolerance of 4mm for roundness and 2mm for flatness. Fort Vale can accept no responsibility for weld distortion. Distortion in excess of these values may lead to problems in operation and/or sealing efficiency. Seal gas-tightness varies according to seal material and can depend upon the number of bolt fixings. For specific advice, please contact Fort Vale: +44 (0)1282 687120.

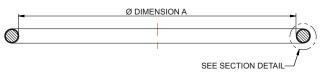
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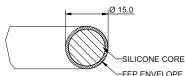
### **Round Section Fortyt Manlid Seal**

#### Part number: 5005-XXFT



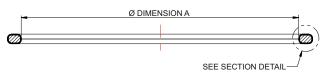
Part Number	Nominal Dia. (mm)	Dimension A (mm)
5005-30FT	300	290.0
5005-50FT	500	485.0

#### Section Detail - 5005-XXFT



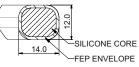
### Square Section Fortyt Manlid Seal

#### Part number: 5005-XXFTSQ



Part Number	Nominal Dia. (mm)	Dimension A (mm)
5005-30FTSQ	300	292.0
5005-50FTSQ	500	484.0

#### Section Detail - 5005-XXFTSQ



### Installation Precautions

- Make sure that the seal material is compatible with the operating conditions and the cargo.
- Examine the manlid seal groove. Make sure that it is clean and that there is no damage or corrosion.
- Examine each seal around the full circumference. Make sure that it is clean and that there is no damage.
- The neckring must be flat to a maximum tolerance of 2mm and round to a maximum tolerance of 4mm after it has been welded to the vessel.

**CAUTION:** If the neckring is distorted during welding, the manlid cover and neckring will not seal correctly. This will cause problems during operation. Fort Vale accepts no responsibility for distortion caused by welding.

**NOTE:** The seal material and the number of bolt fixings have an effect on gas-tightness of the manlid assembly. For installation instructions, refer to data sheet reference MAN052.

Fortyt composite manlid seals are designed to suit the seal groove of Fort Vale manlids and inspection hatches.

There are two types: round section and square section.

Standard sizes : to fit Ø300mm and Ø500mm manlids. Other sizes are available on request.

Fort Vale supply a large range of manlid seals in different materials. Please contact us for more information.

#### SPECIFICATION

Part number Ø300mm: 5005-30FT Part number Ø500mm: 5005-50FT

Composition: Silicone core fully encapsulated with an FEP envelope.

Temperature range: -60°C to +205°C

Maximum torque: 68 Nm

**CAUTION:** Obey the temperature range and the torque value. If you do not obey these values, it can cause permanent damage to the seal.

#### SPECIFICATION

Part number Ø300mm: 5005-30FTSQ Part number Ø500mm: 5005-50FTSQ

Composition: Silicone core fully encapsulated with an FEP envelope.

Temperature range: -60°C to +205°C

Maximum torque Ø300: 54 Nm Maximum torque Ø500: 68 Nm

**CAUTION:** Obey the temperature range and the torque value. If you do not obey these values, it can cause permanent damage to the seal.

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