



TS - 7 Foam Filled Seal TS - 9 Foam Filled Seal and TS - 8 Derivative

The TS - 7 is a resilient foam seal designed for use on all applications except for waxy crude oils. This is a robust liquid mounted construction, ie. the underside of the seal is in contact with the stored product which improves vapour retention. Rim space is 200mm + 100mm.

The TS - 9 foam filled seal from TankServ is intended for use on open topped welded shell tanks where the stored product may range from crude oil through to refined materials; however waxy crudes should be avoided.

The TS - 8 seal is very similar in concept though designed to be used in cone roofed tanks with internal floating pan decks. In this case the rim gap may be as small as 100mm. Aromatic service of up to 100% can be achieved.

TS6 - Foam Description

The TS - 7 seal is a foam log seal where the trapezoidal section foam blocks are wrapped in an endless strip of highly abrasion resistant sheeting. The foam blocks are clamped to a series of supporting mild steel frames which are suspended within the rim gap from the roof rim by special hanger straps. The hanger straps correctly define the position of the frames relative to the stored liquid surface.

The abrasion resistant endless envelope contacts the tank shell and is complemented by a curtain seal preventing any vapours passing between the metal frames and roof rim into the atmosphere.

A very high order of sealing efficiency is therefore obtained with the TS - 7.

Materials of Construction

- **metal parts:** mild steel, natural finish
- **envelope:** TS - 131 for up to 75% aromatics
TS - 321 for up to 100% aromatics
TS - 421 for benzene service

Installation/Maintenance

This seal has the advantage in that installation and maintenance can be carried out from the top side of the floating roof.

Weathershield/Secondary Seal

A weathershield is almost essential; however, even greater benefits can be obtained by fitting a secondary seal from the Servaseal range.

Safety Note:

Before carrying out hot work in any tank fitted with a foam seal, the seal should be removed to a safe place since its cellular construction may remain impregnated with hydrocarbon even after tank cleaning operations.

TS7 - Foam / TS - 8 Derivative Description

The TS - 9 consists of a highly abrasion resistant polymer coated nylon fabric envelope encapsulating a resilient foam block of trapezoidal cross section. The foam is bonded to a metal hold-down plate which is bolted to the floating roof rim.

A mild but positive pressure is exerted by the foam on the tank shell, and the seal completely fills the rim space, even on out-of-round tanks.

Rim gaps of 200mm are normal for this seal; however, wider rim gaps may be considered.

The TS - 9 seal is normally vapour mounted, i.e. the underside of the seal is held clear of the stored liquid; but if conditions allow, liquid mounting may be adopted due to the improved vapour retention properties inherent in that mode.

The TS - 8 seal (internal pan decks) is liquid mounted normally.

The metal hold-down plates to which the foam is bonded hold the seal assembly in place when the floating roof is descending.

Materials of Construction

- **metal parts:** mild steel, natural finish
- **envelope:** TS - 131 PVC/nitrile
TS - 321 polyurethane
- **foam blocks:** polyurethane

Installation/Maintenance

An inherent advantage of this range of seals is the fact that installation and maintenance may be achieved from the top side of the floating roof.

Weathershield/Secondary Seal

A weathershield is almost essential; however, even greater benefits are to be obtained by fitting a secondary seal from the Servaseal range.

Safety Note:

Before carrying out hot work in any tank fitted with a foam seal, the seal should be removed to a safe place since its cellular structure may remain impregnated with hydrocarbon even after tank cleaning operations.

Land & Marine

TANKSERV

Land and Marine Project Engineering Ltd

Dock Road North, Bromborough,
Wirral CH62 4LN United Kingdom

T. +44 (0)151 641 5600

F. +44 (0)151 644 9990

E. company@landandmarine.com

W. www.landandmarine.com

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www.landandmarine.com

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